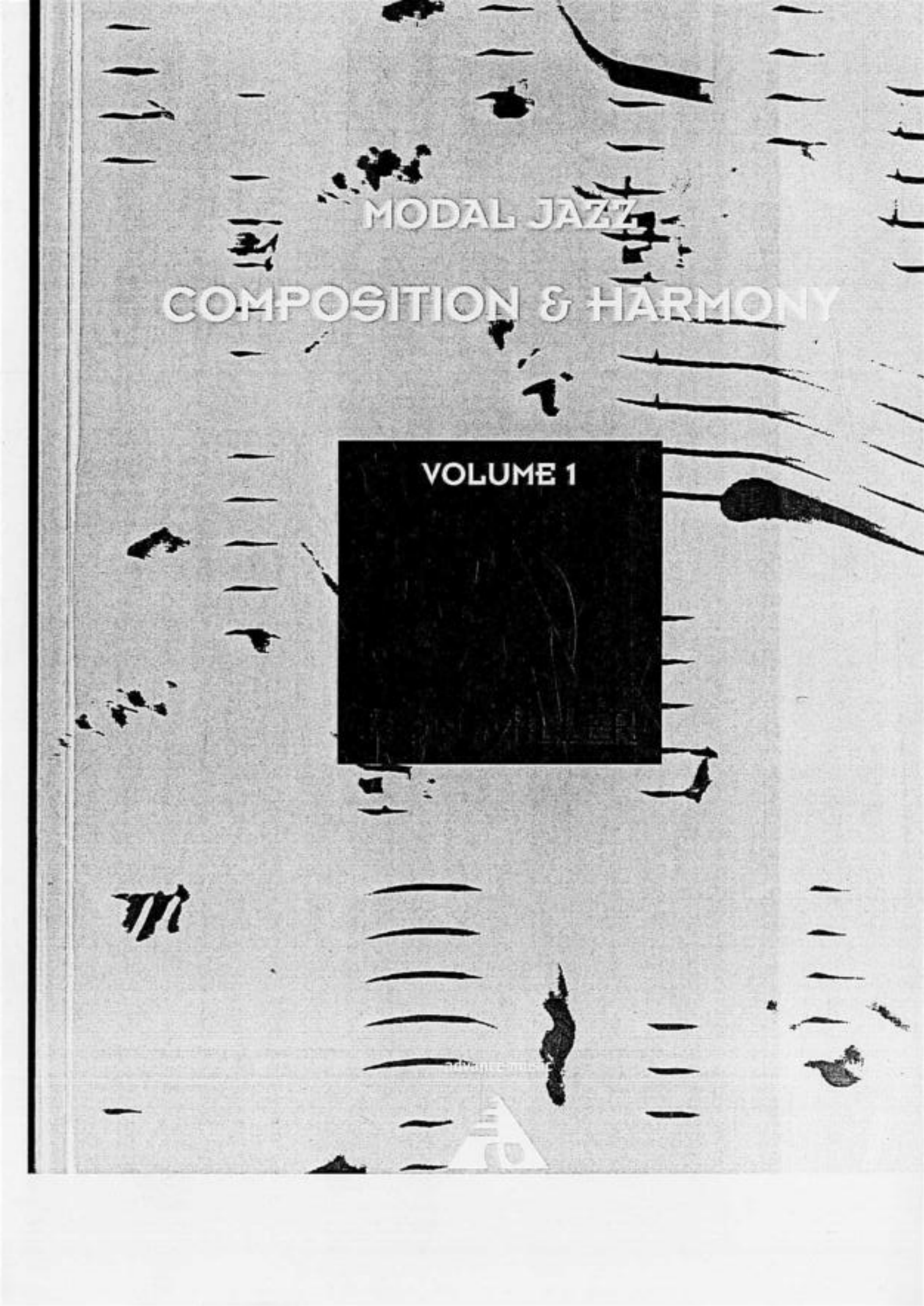
MODAL JAZZ COMPOSITION & HARMONY

VOLUME 1



MODAL JAZZ COMPOSITION & HARMONY

VOLUME 1

BY RON MILLER

WHEN THE MODES OF MUSIC CHANGE, THE WALLS OF THE CITY CRUMBLE. (PLATO)

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TABLE OF CONTENTS

Introduction 6

A Jazz Composer's Regimen 7

How To Use This Book 8

Categories of Jazz Compositions 9

CHAPTER I - Jazz Harmonic Systems 11

CHAPTER II - Construction of the Unaltered Diatonic Modes 15

CHAPTER III - Construction of the Unaltered Diatonic Chords 19

CHAPTER IV - Characteristics of the Unaltered Diatonic Modes 27

CHAPTER V - The Modes of the Altered Diatonic No. 1 (Melodic Minor) 31

CHAPTER VI - Non-Modal Chords 37

CHAPTER VII - Chord Connection/Compositional Devices 43

CHAPTER VIII - Upper Structures 49

CHAPTER IX - Completing the Chord Connection Process 57

CHAPTER X - Form 63

CHAPTER XI - Harmonic Contour 65

CHAPTER XII - The Modes and Chords of the Altered Diatonic No. 2 (Harmonic Minor) 89

CHAPTER XIII - Slash Chord Harmony 95

CHAPTER XIV - Three-Part Upper Structure Chords 111

CHAPTER XV - The Chords of the Altered Diatonic No. 3 (Harmonic Major) and Altered Diatonic No. 4 (Melodic Minor ♯5) 115

Conclusion and Final Comments for Volume 1 124

APPENDIX

1. Acoustics and Modality 126
2. Construction of the Tetrachords 130
3. Additional Examples 131
4. Ear Training 136
5. Tree of Influential Jazz Composers 138
6. Discography/Bibliography 139
7. About the Author 142

The subject of jazz composition has many meanings. Traditionally, a jazz composition was an arrangement for *big band* that was composed by the arranger. Most of the earlier jazz composition textbooks (and there were few) took that approach. A jazz composition for universal use was not a practiced consideration at that time: most small group performance was based on playing standards or blues, or tunes with new melodies derived from an improvised solo over the original or varied version of the original chords. Even the most forward-looking composers of the time were tied to the song form and tonal harmonic system. Although they produced classic, beautiful compositions, the closed quality of their harmonic vocabulary and symmetric form deprived them of diverse expression. It wasn't until the early sixties, when a group of university educated composers hit the scene, that jazz compositions evolved into venues of individual expression for both the composer and the improvisor. These young composers, aware of the harmonies of Bartok, Stravinsky, Ravel and Rachmaninov, and the use of extended and free-form, introduced a new concept of jazz composition to the jazz world. Representative of this new breed were Wayne Shorter and Herbie Hancock. Of course, there were interim composers who advanced the art of jazz composition and influenced subsequent composers with compositions of great strength and beauty. Horace Silver, a perfect example, influenced many jazz composers – this author included. Although his harmonic vocabulary was based within the tonal system, his use of unusual form and perfect tonal center relationships along with great rhythmic ideas and memorable melodies has earned him the respected position of one of "the masters" (see "Tree of Influential Composers" in appendix). It is the freeing of the composer from the structure (or stricture) of the tonal system and strict form, song form in particular, that has allowed so many composers of inert abilities to "blossom" to artists with individual expressive merit. The goal of Volume I of this book is to show the student the means to develop latent creative abilities by offering the unfettered environment of the chromatic-modal harmonic system and free-asymmetric form. In addition, the freedom of the approach will allow the composer to express himself in any style: Post-1950s jazz, classical, ECM, fusion, pop, etc., that is not tied to any harmonic particulars.

Jazz is basically a performer's art form. Not unlike the army where in spite of individual specialization everyone is basically an infantryman, everyone in jazz is basically a player. If your talents are stronger in the writing area, be prepared to "pay dues" or get into classical composition or film scoring. Although the basic musical skills required for both players and writers are the same, once those skills are acquired, the process of development changes. The approach to attaining a level of artistic competence for the player requires the environment of the practice room with hours and hours of acquiring motor skills, learning licks and patterns, learning transcribed solos and developing and perfecting a concept of sound production. The composer, in a disimilar fashion, must expand his learning environment to include the world and all it can teach. Once the composer has mastered the basic musical skills, he has to acquire "something to say." Of course, this is true for the player, but the required instrumental skills seem to have precedence at this point. For the composer, whose efforts are less ephemeral, the following regimen is suggested.

1. Know theory and nomenclature: composers use written means of communication. This category is obvious.
2. Evolution of jazz styles: one should be able to write in all jazz styles and knowledge of the elements of all styles will improve one's personal style.
3. Study and *know* the works of the influential jazz composers: Charlie Parker, Duke Ellington, Charles Mingus, Horace Silver, and Wayne Shorter.
4. Improvisation: if you can't play it, be able to write it.
5. Classical music: study and *know* the works of the romantic melody writers and modern harmonists – Tchaikovsky, Rachmaninov, Chopin, Prokofiev, Stravinsky, Ravel, Rodrigo, Copland; and the classical influenced ECM composers – Ralph Towner, Eberhard Weber, Kenny Wheeler.
6. Study the Humanities: art, literature, drama, particularly the romanticists, and philosophy and religion.
7. Study and *know* world history and world music.
8. Travel and diversity: spend a portion of your life away from music with world travel, getting outdoors with hiking, canoeing, rock climbing; get involved with different occupations.
9. Volunteer for community service.
10. If most of the above is hard to accomplish, at least: read, read and read.

This book is organized in a way that separates the information pertinent to acquiring creative skills, and that of a more esoteric nature: the hows, whys and theoretical foundations, as found in the appendix. This means that the student interested in quickly getting going with composition doesn't need to ferret out the "good" stuff from a jungle of data, while the student interested in the hows and whys can easily access that information. It will be pointed out within the text of each chapter when additional information is available in the appendix. In general, the procedure is to first develop the language of harmony as used in the book, work with exercises to assure mastery of the concept, analyze how the concept is used by accomplished composers and finally, apply the concepts to create a composition. Each chapter has a title page with a list of terms that are important to gaining a complete understanding of the concepts presented in that chapter. The terms, some peculiar to this book, are found in *italics* and are defined within the text. In addition to understanding the terms and concepts, of extreme importance is the "hearing" of the musical aspects of the concept. Any chord, mode, melody, exercise or example should be played on a keyboard regardless of the student's keyboard skills. Only then should the student, if not a keyboardist, use his own instrument or voice. While playing the examples, the student should be listening intently to train his ears to the particulars of each example. Each day the student should try to find time to listen to a selection from the included discography. The ultimate goal is to have all the recordings listed there available for personal listening from memory alone. An important point to remember is that no one can successfully compose in the way this book advocates without first being able to "hear" the concepts presented. In a nutshell, the student should:

1. Learn the concept intellectually.
2. Learn to play it on a keyboard.
3. Learn to hear it.
4. Learn its application in a recorded example.

With each chapter, the subject will be illustrated with an example or examples. Study these, and play them. Next will be suggested exercises that will assure that the concepts are mastered. But more importantly, they are designed to develop creative skills, in fact, most exercises *will* be the seed idea for a finished composition. **The point is to approach the exercises as a potential composition rather than an academic exercise** and to do as many as time allows. When all the beginning concepts are mastered, we will begin to analyze how the techniques are used by the master composers on recorded examples. One should have done much listening by this time. Ideally, the book will be used in a classroom situation with an accomplished teacher/composer who can offer informed objective feedback for any student effort. Once the concepts of the book are mastered, this last step is a must for artistic development. When the information is assimilated and mastered (or before), it is hoped that the student will realize that the "freedom" advocated by the methods of this book allows him to do what he got into music to do to begin with: Be creative and have fun!

The following, like the Tree of Composers (found in the appendix, p. 138), is included to assist in clarifying a direction of study: an attempt to clear some routes through a comprehensive subject and to tie together the compositional styles and influences of the major jazz composers. Jazz, being an art form that allowed individual expression through improvisation, would naturally evolve to allow individuality to be expressed both as composition and improvisation. The categories of jazz compositions that will be covered in both volumes of this book will include the following categories, with volume 1 covering the most complex and comprehensive, as well as that which the rest is a subset: free-form modal (modal complex).

TONAL

A. SONG FORM

Based on the symmetric 32-bar song form typical of tunes from the standard repertoire of the '30s and '40s, this is improvisation oriented composition, many of the tunes being melodies derived from improvisations over standard and dance tunes. Compositions not derived from existing tunes were nonetheless based on their formulae. Their harmonic material rarely strayed from totally diatonic key relationships. Representative composers are Bird (Charlie Parker), Duke Ellington, Billy Strayhorn, Tadd Dameron, and Thelonious Monk.

B. FREE-FORM

No longer strict song form, these can be asymmetric or through-composed. In addition, there is much use of nondiatonic key centering. Representative composers are: Duke Ellington, Charles Mingus, Billy Strayhorn, Benny Golson, and Horace Silver.

C. NEW REHARMONIZATIONS/NEW BOP

Many of the younger composer/improvisors of the eighties, seeking to pay homage to the masters of the past (bebop), returned to the harmonic materials and form of that era (tonal/song form). Based on the bebop concept of writing a new melody over a set of standard changes, this method is made contemporary by altering the harmonic rhythm, by chromatic substitution and by attempts to "modalize" the tonal quality of the original changes. Most of these young "new boppers" are providing this kind of composition: Wynton Marsalis, Rick Margitza, and Jerry Bergonzi are representative.

MODAL

A. MODAL SIMPLE

These are the early modal compositions, where the harmonic content is based on one mode (linear) or a few different modes at different key centers (plateau). Typical are "So What," "Impressions," and "Maiden Voyage." Although not tonal, the form is still fairly symmetric, with most of the compositions being AABA song form. Other than Coltrane and his followers, there doesn't seem to be a "school" of composers with this specialization.

B. MODAL COMPLEX (FREE-FORM)

Having fast asymmetric harmonic rhythm and free-form, this is the most complex and comprehensive harmonic category. This kind of harmony offers the easiest means for creative expression but requires the most creative "effort" of the composer. Wayne Shorter is the main source of inspiration for this category.

PENTATONIC TUNES / BLUES TUNES

This is a composition in which the melodic source material is the focus of its development. That melodic source material is derived from either the unaltered, altered, or add note pentatonic scales and all their modes. The harmonic material can be of any category, but the form is usually derived from that which is found in the world's folk musics.

AVANT-GARDE

A. TONAL/BEBOP

Using tonal melodies and song form as a point of departure, the father of this style is Ornette Coleman, who is a major influence on Carla Bley, Albert Ayler, and Pat Metheny.

B. MODAL

Pushing the simple-modal and pentatonic category to the edge, John Coltrane and his followers at the time – Steve Grossman, David Liebman, Archie Shepp – are the representative composers.

C. FUSION

Utilizing dance rhythms, adding electric instruments, but still maintaining free improvisations as its basis, this category is represented by Ornette Coleman, James 'Blood' Ulmer, Bill Laswell, and others.

D. WORLD/ETHNIC/PROGRAMMATIC

The last category of avant-garde is very diverse in style and offers venue for the composer who has the desire to make a social comment. There are too many in this and the fusion category to list the truly representative. The most famous are Sun Ra and the Art Ensemble of Chicago.

All of the above *will* be covered in detail in the appropriate chapters of the appropriate volume, but for now it should suffice as a guide to comprehension of the "big picture" and getting an idea of the overall goal of both volumes of this text. Bear in mind that the better jazz composers create works in many of the listed categories.

CHAPTER 1

Jazz Harmonic Systems

WORDS OR CONCEPTS TO KNOW:

1. Style
2. Symmetric Division
3. Asymmetric Division
4. Tonal
5. Modal
6. Non-modal
7. Chromatic
8. Vertical Modal
9. Plateau Modal
10. Linear Modal
11. Harmonic Rhythm
12. Harmonic Melody

The harmonic materials emphasized in this book can be applied to any style[1] of composition, if the style is not defined by any harmonic particulars, i.e., post-1950s jazz, pop, ECM, late 19th/20th century classical, etc.

Typical would be the works of Pat Metheny, Wayne Shorter, Ralph Towner, Joe Henderson, and Kenny Wheeler, to name a few. Most of their compositions are similar in their use of non-diatonically related modal material, free-form (non-song form), asymmetric harmonic rhythm, and a diversity of rhythmic style. In addition, many of their compositions reflect a tie to the tradition of jazz with sections of tonal harmony and swing feel. Most of their works are "playable."

MODALITY[2] IS DEFINED BY

1. The octave as a means of stable limits
2. Asymmetric division of the octave into:
3. Seven different pitches

Note that the octave divided symmetrically produces non-modal[3] scales that have a particular sonoric quality that can be of compositional use.

HARMONIC GROUPS

The groups are defined by the presence or absence of preset rules of structure and organization.

The harmonic content of a composition can be in one group or combinations of the groups.

THERE ARE FOUR MAIN GROUPS (three are modal, one is nonmodal).

1. TONAL (modal specific) A modal system which has specific means of organization (rules):
   (a) root movements of a fifth
   (b) specific modal contour[4]
   (c) diatonic root relationships
   (d) symmetric harmonic rhythm
   (e) well defined 'home' key
2. MODAL (modal arbitrary, free-form) There are no preset means of organization:
   (a) root movement, harmonic rhythm, and modal contour determined by the whim of the composer
   (b) chromatic root relationships
   (c) usually there is no clear home key
3. CHROMATIC (plateau tonal) Same qualities as tonal, except there is no clearly defined home key:
   (a) there are many different key centers (plateaus)
   (b) the key centers usually are nondiatonic
   (c) the harmonic rhythm is usually symmetric
4. NON-MODAL (symmetric):
   (a) unclear resolution, each note has the same harmonic/melodic qualities
   (b) chords and melodies exist as a sonority, a "sound"
   (c) example: diminished, whole tone, 12-tone, augmented

1) Way in which the composer applies the elements of music harmonically, melodically, etc., which means that harmonic devices that define style must be used in tandem with free-form creativity.
2) A quality of the unequal division of the octave in which each scale step has its own harmonic/melodic definition.
3) The quality of any scale in which the octave, equally divided, gives each scale step or fragment the same harmonic/melodic definition.
4) The dynamic qualities of a group of chords within a section or phrase.

THE SUBGROUPS OF MODAL ARBITRARY

These are the harmonic groups that will be emphasized in this volume and from this point on will generally be referred to as *modal harmony.*

There are three subgroups of modal harmony: *vertical modal, plateau modal,* and *linear modal.*

THE GROUPS ARE DEFINED BY

(a) harmonic rhythm – chord duration, dependent on tempo

(b) melodic quality of the bass line

(c) definition of a home key

VERTICAL MODAL

(a) fast harmonic rhythm (one chord per beat to one chord per bar)

(b) very active, melodic bass line

(c) no clearly defined home key

(d) harmonic melodies are usually chromatic (see p. 61)

(e) individual chords tend to be heard as a sonority rather than a modality

This harmonic style, being very active, can be overbearing. It is usually used at cadential areas of a composition, but can be found in complete use in some slower tempo tunes.

Examples: "Little One" by Herbie Hancock, "Dance Cadaverous" by Wayne Shorter, "Yellow Bell" by Ralph Towner.

PLATEAU MODAL

(a) harmonic rhythm slow enough to establish modality per chord

(b) bass part less active, less melodic

(c) mostly non-diatonic root relationships

(d) no clearly defined home key

(e) harmonic rhythm tends to be symmetric, two to four bars per chord

Examples: "Gazelle" by Joe Henderson, "Afro-Centric" by Joe Henderson, "Loft Dance" by David Liebman, "Maiden Voyage" by Herbie Hancock

LINEAR MODAL (there are two kinds – depending on the harmonic rhythm):

1. Slow to no harmonic rhythm:

   (a) no bass melody, more of a vamp

   (b) typically only one mode (root) for entire composition

   (c) an overall key and modality can be identified

   (d) less symmetric form

2. Faster harmonic rhythm:

   (a) mostly overall diatonic roots, melody, and spelling

   (b) more melodic bass part

   (c) clearly defined home key

   (d) more symmetric form

Examples: Slow – "In a Silent Way" by Joe Zawinul, "Masqualero" by Wayne Shorter, "Sea Journey" by Chick Corea; Fast – "American Hope" by Ron Miller, most pop tunes, Metheny tunes, Brazilian, and new age tunes

SUGGESTED EXERCISES

Listen to the following recordings and try to identify the general harmonic group. If more than one group is used in a single composition, label the group by sections. Try to name the modality of each section.

1. *The Sorcerer* - Miles Davis (Columbia CS 9532)
   (a) "Pee Wee" - Tony Williams
   (b) "Masqualero" - Wayne Shorter

2. *In a Silent Way* - Miles Davis (Columbia CS 9875)
   (a) "In a Silent Way" - Joe Zawinul

3. *Power to the People* - Joe Henderson (Milestone M 9024[1])
   (a) "Black Narcissus" - Joe Henderson
   (b) "Power to the People" - Joe Henderson

4. *American Hope* - Ron Miller (Novus 3058-2N)

Compare the rhythm section style of playing on the above recordings with that of any Charlie Parker recording and compare the harmonic rhythm of the above with any pre-1960s Jazz Messengers recordings. Is there a difference in the harmonic rhythm of compositions found on Messengers recordings after Wayne Shorter joined the band?

1) Reissued on the 2-LP set "Foresight" (Milestones M 47058)

CHAPTER 11

Construction of the Unaltered Diatonic Modes

WORDS OR CONCEPTS TO KNOW:

1. Diatonic Method
2. Chromatic Method
3. Tetrachords*)
4. Connector Tone

*) See page 130

METHODS

There are two methods:

1. DIATONIC METHOD

   The traditional method: that of establishing a key center and transposing the adjacent notes of the major scale. The modes are diatonically related, with no clear color comparison.

2. CHROMATIC METHOD

   Fixed starting note method: this is a nondiatonic method where each mode has the same starting note. The modes are constructed by the combination of tetrachords that clarifies the differences in modality, stability and harmonic/melodic qualities.

The main goal of this section is to establish a harmonic palette for the composer of modal compositions to use in a manner similar to that of the visual artist. The "colors" are to be bright or dark, tense or relaxed, and to have emotional effects as well. With this in mind the chromatic method is the best choice.

The six scales from which the harmonic material in this book will be derived are the following:

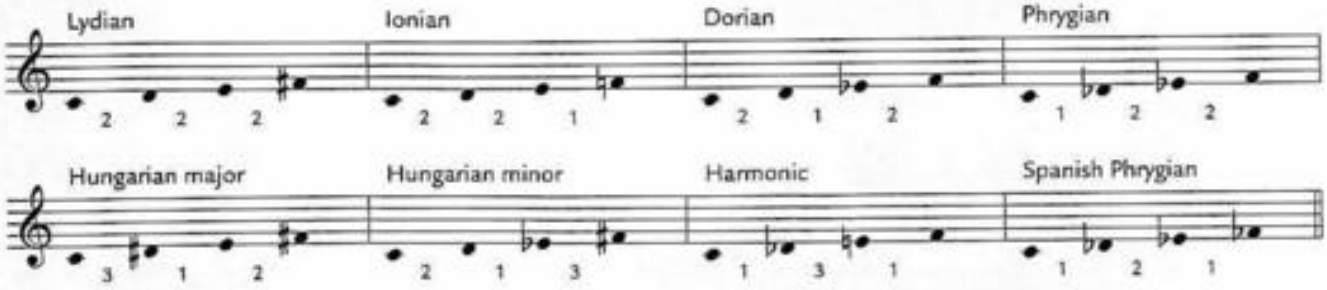
1. Ionian mode
2. Ionian ♭3 (melodic minor)
3. Ionian ♭6 (harmonic major)
4. Ionian ♭3, ♭6 (harmonic minor)
5. Ionian ♭3, ♯5 (melodic minor ♯5)
6. Ionian ♯2

TETRACHORDS[1)]

There are two groups: *diatonic* and *chromatic*

1. DIATONIC: Follows an alphabetical sequence, with no enharmonic spellings.
2. CHROMATIC: Alphabetic sequence with enharmonic spellings.

DIATONIC	SEMITONES	CHROMATIC	SEMITONES
Lydian	2 2 2	Hungarian major	3 1 2
Ionian	2 2 1	Hungarian minor	2 1 3
Dorian	2 1 2	Harmonic	1 3 1
Phrygian	1 2 2	Spanish Phrygian	1 2 1

Example 2-1:

1) A 4-note scale fragment having its own modal quality.

THE DIATONIC MODES (UNALTERED IONIAN)

Using the chromatic or fixed starting note method, the modes are created by combining two tetrachords, each with its own modality, into a resulting merged modality with its own qualities of brightness/darkness, resolution tendencies, and harmonic/melodic definition.

These results should be met:

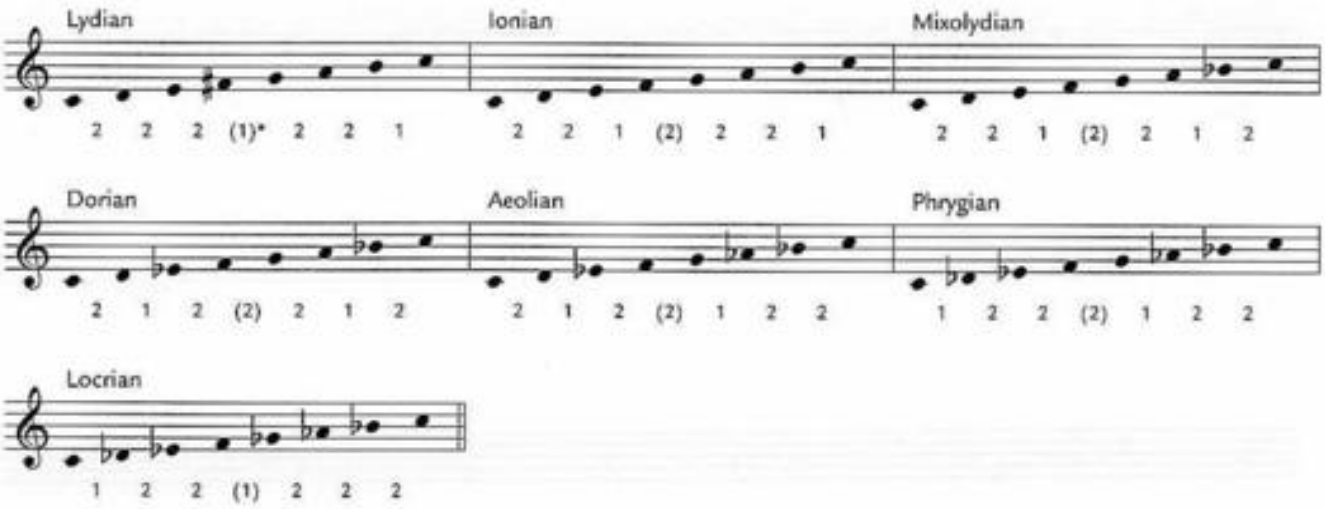
1. The sum of the semitones equals 12.
2. There are seven different scale steps.
3. They are all contained within an octave.

THE FORMULAS

MODE	TETRACHORDS	SEMITONES	CONNECTOR
Lydian	Lydian & Ionian	222 & 221	1
Ionian	Ionian & Ionian	221 & 221	2
Mixolydian	Ionian & Dorian	221 & 212	2
Dorian	Dorian & Dorian	212 & 212	2
Aeolian	Dorian & Phrygian	212 & 122	2
Phrygian	Phrygian & Phrygian	122 & 122	2
Locrian	Phrygian & Lydian	122 & 222	1

Note the shifting of the minor second interval from the right to the left. This is a visual representation of the order of *brightest* to *darkest* of the modes.

Example 2-2: The Unaltered Diatonic Modes



*) Note that in order for the semitones to add up to 12, another interval must be added to the formula, either a semitone or a whole tone. This will be called the *connector* or *connecting* tone and is found between the upper and lower tetrachord.

SUGGESTED EXERCISES

1. Construct the following modes using the tetrachord method (do not use key signatures):

   (a) D Ionian
   (b) F Aeolian
   (c) E♭ Locrian
   (d) G Phrygian
   (e) B♭ Lydian
   (f) D♭ Mixolydian
   (g) E Dorian

2. Try to construct a tetrachord not listed in the text.

3. Try unusual combinations of the given tetrachords.

4. Play the tetrachords, learn to identify them by ear.

5. Do the above for the modes, make note of their emotional quality.

CHAPTER III

Construction of the Unaltered Diatonic Chords

WORDS OR CONCEPTS TO KNOW:

1. Shorthand Method
2. Comprehensive Method
3. Spelling
4. Parent Scale
5. Priority Order
6. Spacing/Voicing
7. Tertiary
8. Cluster
9. Quartal
10. Mixed
11. Balance
12. Support
13. Tessitura
12. Overtone Series
13. Fundamental
14. Upper Structure
15. Grip

METHODS

There are two methods of modal chord construction:

1. COMPREHENSIVE METHOD

All aspects of modal quality and acoustic properties of note groups must be known: *spelling, spacing,* and *balance.*

2. SHORTHAND METHOD

Upper structure method: an upper structure with a particular hand shape or *grip* is placed over a root. [Note: The shorthand grip method will be covered in Chapter VIII.]

THE COMPREHENSIVE METHOD

SPELLING/COLOR TONES

To determine the tones (color tones, quality tones) that determine a scales modality, a direct comparison with its *parent scale*[1] must be made.

The notes with different alterations are the notes that give the mode its quality.

There is an order of priority in the list of color tones that define any mode.

THE DIATONIC MODES PRIORITY TABLE

	1	2	3	4	5	6
Lydian	♯4	7	3	6	9	(5) opt
Ionian (1)	7	4	3	6	9	5
Ionian (2)	7	3	9	6	5	(no 4)
Mixolydian (1)	♭7	4	3	6	9	5
Mixolydian (2)	♭7	3	9	6	5	(no 4)
Dorian	♭6	♭3	♭7	9	5	4
Aeolian	♭6	2	5	♭3	♭7	4
Phrygian	♭2	5	4	♭7	♭3	♭6
Locrian	♭5	♭2	♭7	♭6	♭3	4

[Note: The order has been adjusted to conform to "common practice"]

SPACING[2]

has priority order over spelling.

[Note: The primary means of chord construction used in this book is that of stacking of upper structures over roots. The spacing categories refer to the upper structure only.]

THE CATEGORIES OF CHORD SPACING

1. TERTIARY – The adjacent notes are of a major third or minor third interval.
2. CLUSTER – The adjacent notes are of a major second or minor second.
3. QUARTAL – The adjacent notes are of a perfect fourth or ♯4.
4. MIXED – The adjacent notes are of a combination of seconds, thirds, and fourths.

1) The Ionian mode with the same root as the compared mode (see appendix).

2) The intervalic ratio between the adjacent notes of the upper structure of a chord, there are four categories.

BALANCE/SUPPORT[1)]

This describes how the vertical spacing affects the chord stability.

[Note: For this kind of harmony, stable chord construction is not always desired; often, an exotic imbalanced construction sounds very appropriate.]

Good balance usually is a result of chord construction, which follows a model of the overtone series in its vertical arrangement. In addition, the quality of the intervals adds to the overall sound – thirds are consonant, seconds have bite, and fourths have tension.

1. TERTIARY – The most balanced, the one which mimics the overtone series but the most bland and uninteresting.
2. CLUSTER – The one which is most unlike the overtone series, but has an interesting "bite."
3. QUARTAL – An example of displaced overtones, it has subtle added tension which gives it a great sound.
4. MIXED – The best choice, has a good combination of consonance, bite and tension.

SOME GENERAL "RULES"

A. ROOTS

- No less than an octave between the root and the upper structure if the root is lower than G^3 (second G below middle C).
- No less than a ♯4 between the root and the upper structure if the root is above G^3.
- No more than an octave between root and upper structure if the root is above C^3 (C below middle C).

B. UPPER STRUCTURES (MIXED)

- No more than a fifth between the lowest note of upper structure to its next upper note.
- No more than a fourth between any of the remaining upper structure notes.

Keep in mind that the upper structure by itself is less sensitive to weak balance, and that unusual combinations are desired in most cases.

1) A result of the root to upper structure ratio within a certain tessitura. Support is effected by the tessitura of the root and its ability to act as a fundamental to the overtone series. (See p. 127)

PROCEDURE FOR CHORD CONSTRUCTION

The priority order table is not set up completely by the dictates of acoustics. There are adjustments made to the table that are more reflective of "common practice." That is, taking preference in the order of notes that emphasize the modal quality of a primary tone or selecting notes that conform to documented use in recordings or printed music. It will be explained in each example when an adjustment is made.

Although all spacings will be represented in the examples, it is restated here that the most interesting are the mixed spacings. Still, one should be familiar with the construction and use of all spacings.

1. Select the general tessitura and root of the chord.
2. Select the kind of spacing.
3. Place the primary color tone somewhere within the selected tessitura.
4. Fill in, up or down, the remaining color tones within the specified interval of the selected spacing to the number of notes desired in the chord (four or five plus root is typical).
5. Keep in mind the rules of support and balance if good support and balance are desired. One should be able to create a balanced chord on assignment.
6. If constructing mixed spacings, try to create balanced chords first, then experiment with exotic (imbalanced) spacings. Some of them sound surprisingly good.
7. Erase and adjust if needed. If constructing an assigned spacing (quartal, etc.) you may need to shift the priority table to fulfill the required spacing.
8. Doublings are acceptable and even desired in some cases. Recommendations will be made within the comments of each example.

At this time it should be pointed out that there is a problem with the standardization of modal chord symbols. Throughout the remainder of the text, the chord symbols given in the examples are a compilation of suggestions that I have received from the many students I have had from all parts of the world. These suggested symbols work, but are open to criticism.

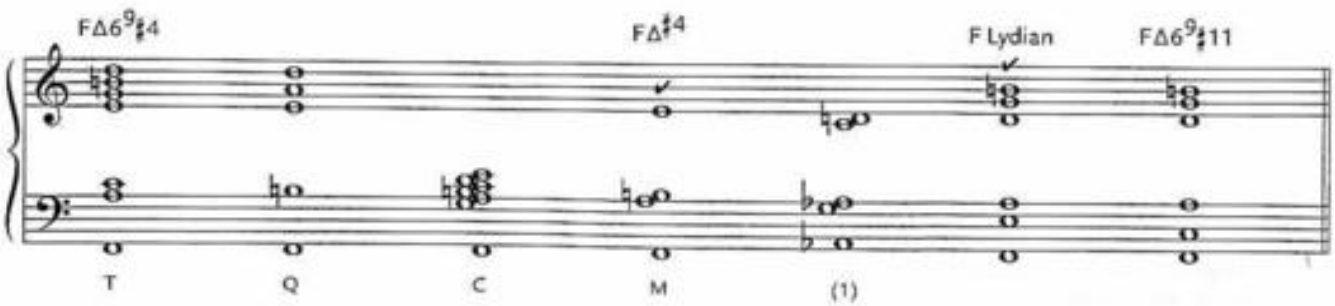
THE EXAMPLES: THE UNALTERED DIATONIC MODES

T = Tertiary Q = Quartal C = Cluster M = Mixed

The mixed examples are typical of those found in common practice. Specific examples found in the listed discography will be labeled.

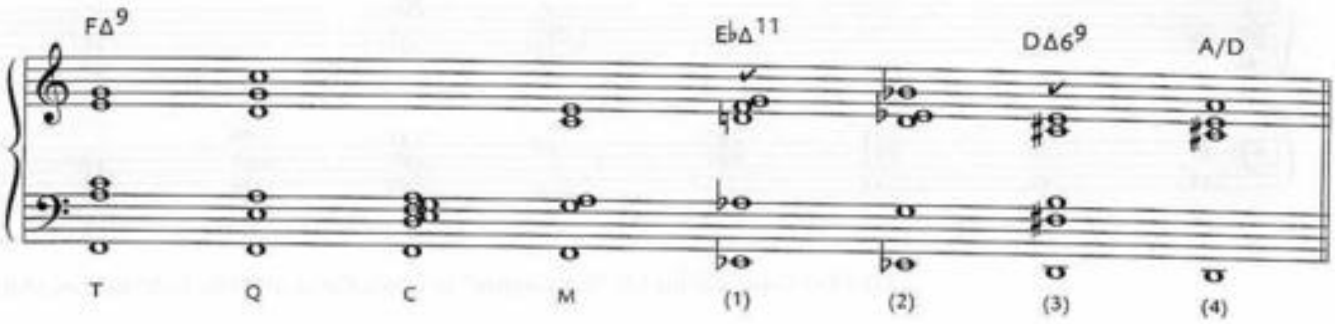
Check marks refer to the preferred examples because of true modal sound or because of "common practice" usage.

1. LYDIAN - Sounds best with the third next to the #4, try to avoid using the fifth, it makes the #4 sound like a #11 (see FΔ6/9#11).

Example 3-1:

(1) found in "Gazelle" by Joe Henderson

2. IONIAN – There are two forms of Ionian, the common one: Δ6/9 which is lacking complete Ionian modality, and the Δ^{11} which has the true modal sound.

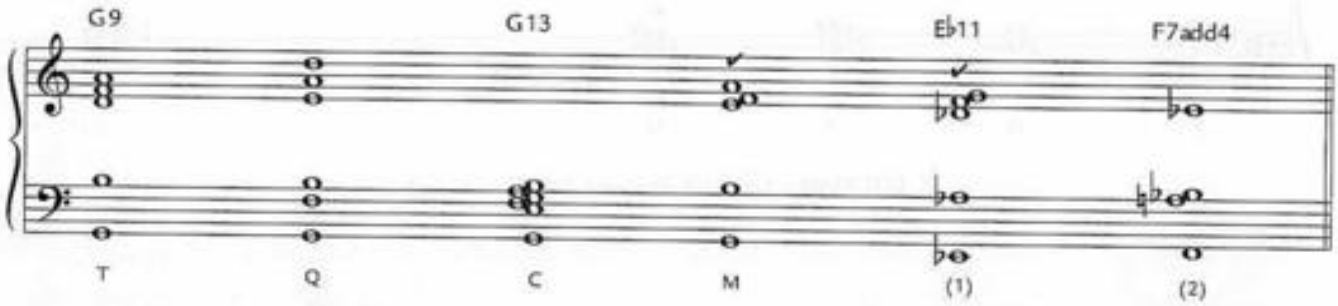
Example 3-2:



(1) = true modality (2) = exotic (3) = traditional (4) = contemporary

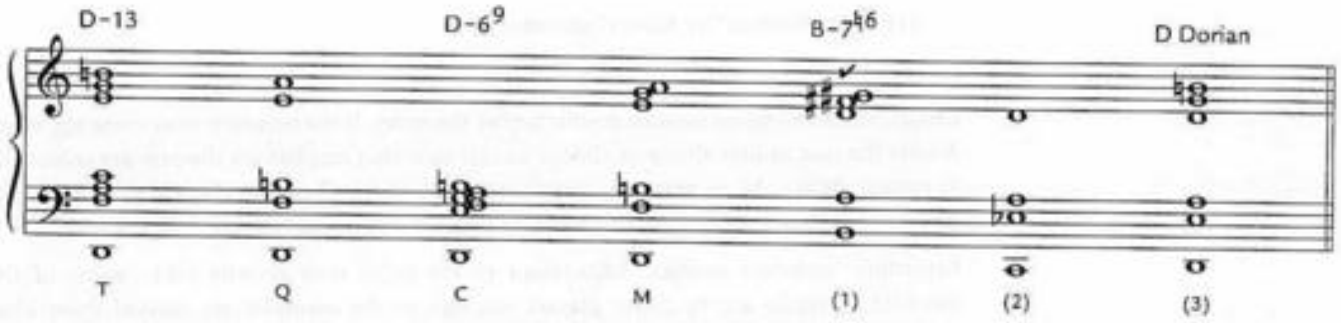
3. MIXOLYDIAN – Like Ionian, has two versions, the one with true modality has both the third and the fourth.

Example 3-3:



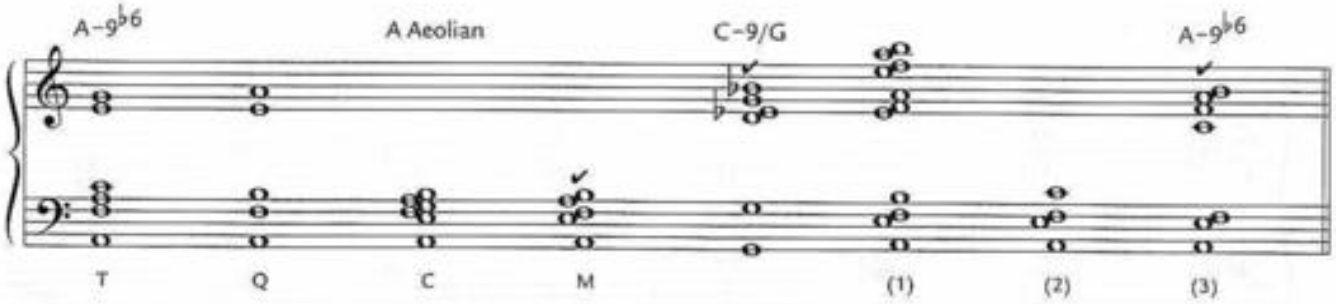
(1) = true modality (2) "Monk's Dream"

4. DORIAN – Must have a natural sixth, note that C-9 is not a modal chord.

Example 3-4:

(1) from "Touch" by Eberhard Weber (2) "Alice's Wonderland" by Charles Mingus
(3) "So What" by Miles Davis

5. AEOLIAN – Dark and beautiful, can sound like a first inversion triad.

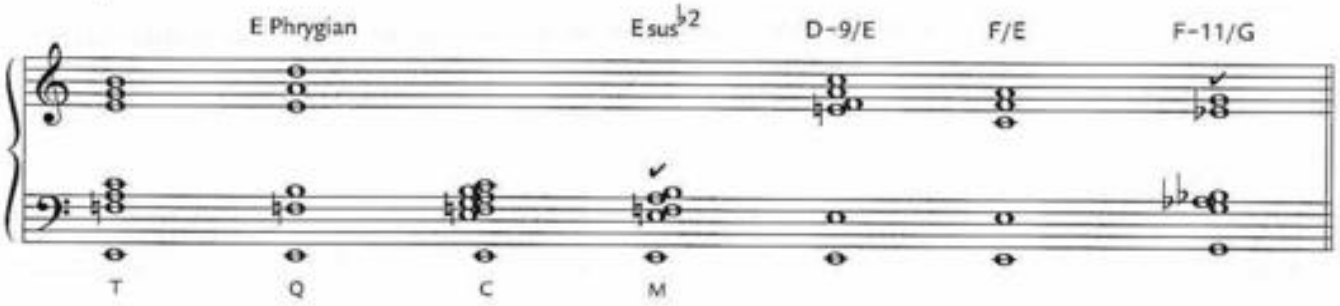
Example 3-5:



(1) a Gil Evans voicing (2) "Sea Journey" by Chick Corea (3) "The Lieb" by Ron Miller

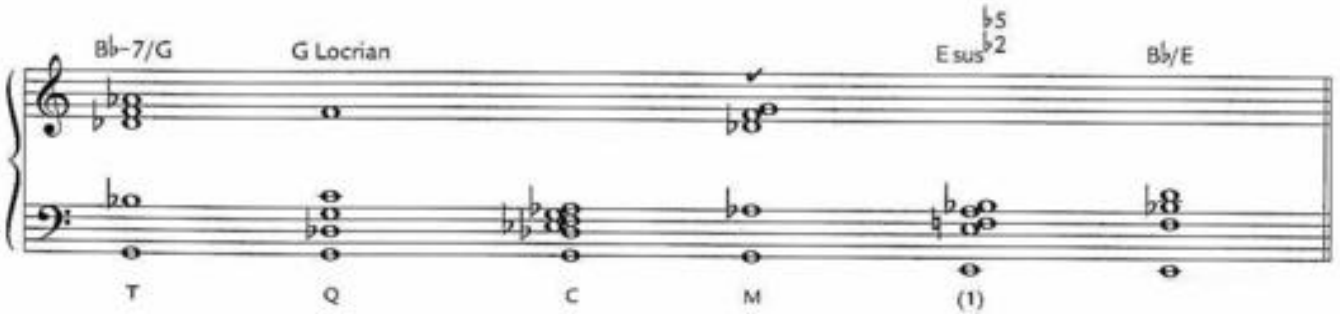
6. PHRYGIAN – Dark and exotic, good "colors" chord.

Example 3-6:



7. LOCRIAN – Use with caution! Can be too dark and tense.

Example 3-7:



(1) from "Haressa" by Steve Grossman

Usually there will be no need to double any of the notes. If the occasion does come up, try to double the root as first choice or choose a color tone that emphasizes the primary color tone as second choice. As an example, doubling the root with Phrygian also emphasizes the ♭2 quality of Phrygian, doubling the root with Aeolian emphasizes the natural second.

Regarding 'common practice' adjustment of the color tone priority table, many of the recorded examples are by piano players voicings so the examples are derived from what conforms to hand shape (see Chapter VIII on the grip method). Other adjustments are made to enhance the modality of the chord. An example is the inclusion of the perfect fifth to Aeolian to emphasize the flat six quality while clarifying that the chord is *not* an Aeolian flat five (Locrian ♮2).

SUGGESTED EXERCISES

1. Construct 5-note chords (root + four) of the following modes:
   (a) F Lydian, mixed
   (b) A Phrygian, cluster
   (c) E♭ Mixolydian, add ♮4, quartal
   (d) B♭ Aeolian, mixed (C on top)
   (e) B♭ Dorian, mixed (C on top)
   (f) E Phrygian, cluster
   (g) E♭ Lydian, quartal
   (h) A Aeolian, cluster (B on top)

2. Construct the following chords as specified (include chord symbols and use your best calligraphy – be aware of neat presentation):
   (a) G Phrygian, quartal
   (b) E Dorian, tertiary
   (c) E♭ Ionian, no third, cluster
   (d) D♭ Lydian, tertiary

   Two mixed each for the following:
   (a) C Mixolydian ♮4
   (b) F Aeolian
   (c) B♭ Lydian
   (d) D♭ Ionian ♮4

3. (a) Play through all of the above chords, transpose to all keys.
   (b) Listen carefully as you play. Have a friend play them, try to identify their modality.

CHAPTER IV

Characteristics of the Unaltered Diatonic Modes

WORDS OR CONCEPTS TO KNOW:

1. Order of Brightness to Darkness
2. Momentum
3. Modal Resolution
4. Stability
5. Emotional Generalizations
6. Palette
7. Harmonic Cadence

The following characteristics of the unaltered diatonic modes are the seed qualities for all subsequent modes and their chords to be introduced in the book. The later modes/chords have these basic qualities, with subtle enhancements according to their divergence from the source diatonic mode.

The goal of the following descriptions is to establish and list a mode's musical/emotional qualities, which can be referred to for compositional and aesthetical use.

BRIGHTNESS TO DARKNESS

1. The shifting of the semitones from right to left increases the amount of darkness.
2. The increase of darkness is a realization of the effects of alteration by "flatting."

THE ORDER OF BRIGHT TO DARK

1. LYDIAN — brightest
2. IONIAN
3. MIXOLYDIAN
4. DORIAN
5. AEOLIAN
6. PHRYGIAN
7. LOCRIAN — darkest

RESOLUTION TENDENCIES

1. MOMENTUM – The desire of the root to resolve to the home key, the root of the Ionian mode with the same diatonic spelling.

   Examples: C Phrygian wants to go to Ab Ionian; C Lydian wants to go to G Ionian.

   The chords can cycle through chords with less momentum until the home is reached.

   Example: D Dorian to G Mixolydian to C Ionian

   As one can see, this is the foundation for *diatonic cadence.*

2. MODAL RESOLUTION – The desire of a modal chord to release its tension by becoming the Ionian mode with the same root.

   Examples: C Aeolian to C Ionian, F Mixolydian to F Ionian.

   This method of chord comparison is used to create modal contour and will be covered in a later chapter.

3. STABILITY – The lack of any need of the modal chord to resolve, also could be thought of as lack of tension. Ionian is the only mode without desire to resolve or to relieve tension (see appendix).

   The order of tension or lack of stability is the same as the darkness order, except that Lydian is less stable than Ionian and wants to resolve to Ionian.

EMOTIONAL GENERALIZATIONS

The modes can and should be used to form an emotional response from the listener. The descriptions are the result of a listener poll upon hearing different modes with different voicings. Being a generalization, the results are accurate in most cases but cannot be totally relied upon. Such inaccuracies come from the diversity of the listener's familiarization with different kinds of music, as well as their life experiences and cultural backgrounds.

THE RESULTS

1. Lydian – aggressive, urgent, frantic, urbane, busy
2. Ionian – stable, peaceful, placid, content, hopeful
3. Mixolydian – transient, searching, suspended, floating
4. Dorian – brooding, uncertain, thoughtful, pensive
5. Aeolian – melancholy, sad, somber, darkly romantic
6. Phrygian – mysterious, exotic, haunting, spacy, psychedelic
7. Locrian – angry, tense, ugly, mean, enraged

Note that the above qualities can be affected by other musical devices like tempo, tessitura, chord spacing, as well as syncopation, harmonic rhythm, and melody. The order of brightest to darkest should be considered as well.

We now have a simple palette of primary colors with which to create our harmonic scene. We can create a modal landscape by contrasting bright chords with dark ones. We can bring about an emotional response from the listener by our selection of modality and by careful selection of the general key or tessitura of all the chords. In addition, we can enhance the effect by the selection of the appropriate tempo and harmonic rhythm.

All of the above will be covered in later chapters, but next we need to construct modes and their chords that will add secondary "colors" to our palette.

It is important to grasp the concept that the second group of modes is derived from the primary group of simple diatonic modes; that the secondary group is a form of altered-diatonic, and that all the qualities of the original diatonic modes are maintained but enhanced by the quality of the alteration. As an example, one of the modes we will construct is Phrygian, with its sixth naturalized. The sixth of the unaltered diatonic Phrygian is flatted so the new Phrygian natural six has the same qualities of the original but a bit "brighter."

SUGGESTED EXERCISES

1. Play all the previously constructed modal chords, try to identify their emotional quality. Try to determine if different roots or spacings affect the result.

2. Listen to the following recordings, make a comment on your emotional response. Name the overall modality. Note how tempo and key affect the end emotional result.

   (a) *Power to the People* – Joe Henderson, "Power To The People" (MPS 9024)

   (b) *American Hope* – Ron Miller, "Elements," Liberal Arts (Novus 3058-2N)

   (c) *Sleeping Giant* – Herbie Hancock, "Crossings" (BS 2617)

   (d) *The Following Morning* – Eberhard Weber, "The Following Morning" (ECM 1384)

3. Learn the acoustic source of the diatonic modes, be prepared to answer immediately.

   Examples:

   C Phrygian: A♭

   F Aeolian: ____

   A♭ Lydian: ____

   B Mixolydian: ____

CHAPTER V

The Modes of the Altered Diatonic No. 1 (Melodic Minor)

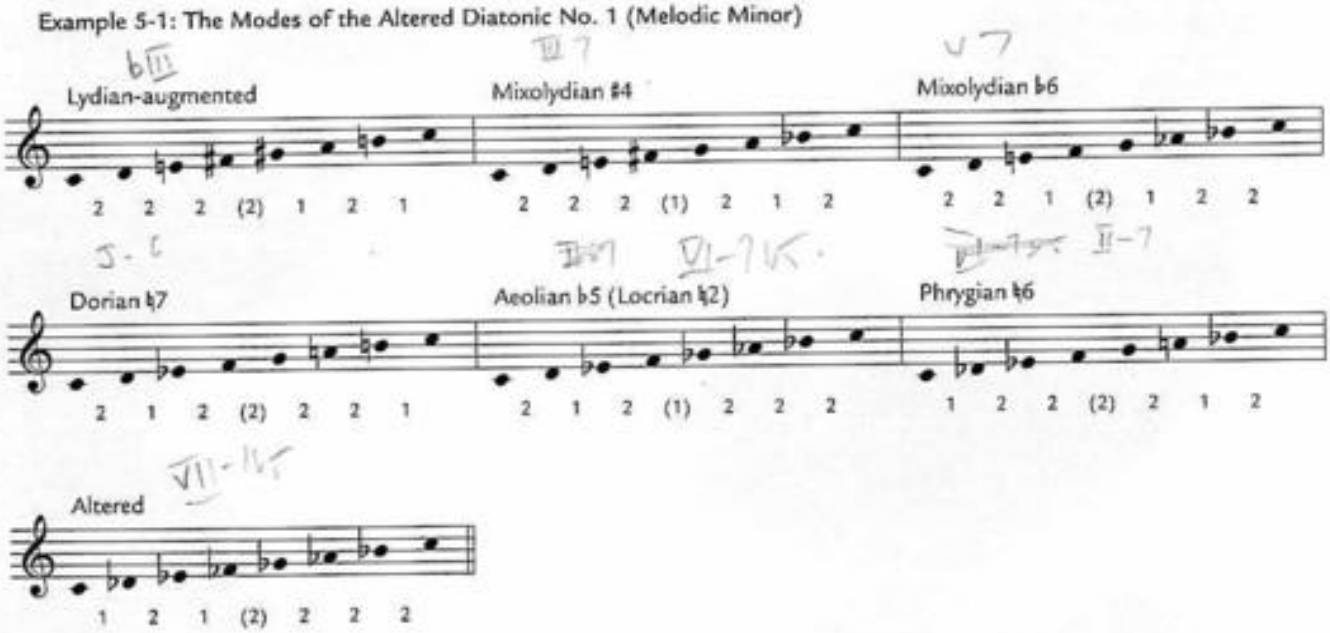
THE MODES OF THE ALTERED DIATONIC NO. 1

Again, the method used for mode construction will be the fixed starting note method: that of combining tetrachords. With this group there is the introduction of the Spanish Phrygian tetrachord. This is the darkest one we use; any futher shifting of the right semitones would produce a wholly chromatic combination.

THE TETRACHORD FORMULAS

MODE	TETRACHORDS	SEMITONES	CONNECTOR
Lydian-augmented	Lydian & Spanish	222 & 121	2
Mixolydian ♯4	Lydian & Dorian	222 & 212	1
Mixolydian ♭6	Ionian & Phrygian	221 & 122	2
Dorian ♮7	Dorian & Ionian	212 & 221	2
Aeolian ♭5	Dorian & Lydian	212 & 222	1
Phrygian ♮6	Phrygian & Dorian	122 & 212	2
Super-Locrian	Spanish & Lydian	121 & 222	2

Notice the asymmetric organization of the semitones due to the alterations. Although the darkness order is unclear, we will simply follow the order of the unaltered diatonic modes, with the alteration being considered a quality enhancement. Traditionally, we think of the source of this set of modes as being melodic minor (ascending), but in order to refer to the *parent* scale for order of darkness, emotional characteristic, etc., try to think of the source as altered Ionian – Ionian ♭3.

Example 5-1: The Modes of the Altered Diatonic No. 1 (Melodic Minor)

Lydian-augmented
2 2 2 (2) 1 2 1
Mixolydian ♯4
2 2 2 (1) 2 1 2
Mixolydian ♭6
2 2 1 (2) 1 2 2
Dorian ♮7
2 1 2 (2) 2 2 1
Aeolian ♭5 (Locrian ♮2)
2 1 2 (1) 2 2 2
Phrygian ♮6
1 2 2 (2) 2 1 2
Altered
1 2 1 (2) 2 2 2

CONSTRUCTION OF THE CHORDS

Although we are still using the *comprehensive* method, the chord examples will be of mixed spacings only. There will be examples of other spacings in subsequent chapters and in the appendix.

Comparing the altered diatonic modes with the diatonic modes, we derive the following table of color tones, again, adjusted for common usage and modal definition.

TABLE

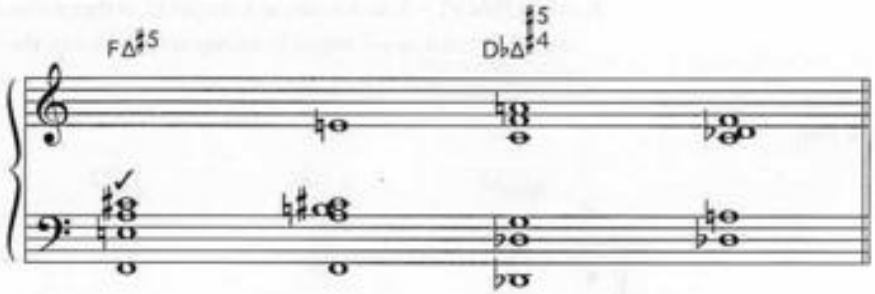
Lydian-augmented	♯5	♮7	3	♯4	6	9
Mixolydian ♯4	♯4	♭7	3	6	9	5
Mixolydian ♭6	♭6	♭7	3	9	5	4
Dorian ♮7	♮7	♭3	♮6	9	5	4
Aeolian ♭5	♭5	♭3	♭7	♭6	9	4
Phrygian ♮6	♮6	♭2	4	♭7	♭3	5
Super-Locrian	♭4	♭7	♭6	♭3	♭5	♭2

As will be seen, we must use at least two of the tones to get sufficient modal definition.

CHORD EXAMPLES

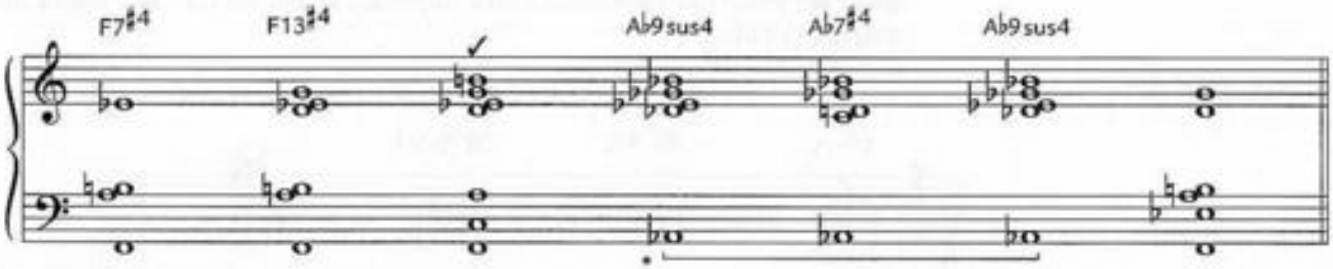
1. LYDIAN-AUGMENTED – A brighter form of Lydian, it is quite often found without the ♯4.

Example 5-2:



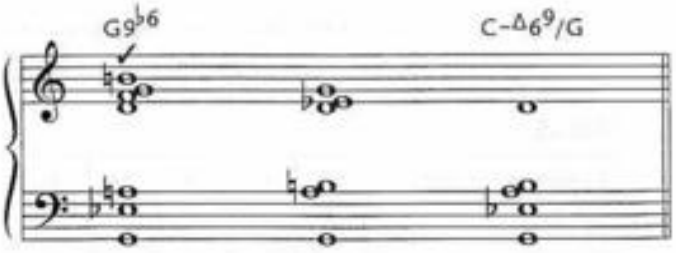
2. MIXOLYDIAN ♯4 – Not really the 13♯11 chord familiar to all, this chord is usually used in tandem with sus chords. It is a brighter form of Mixolydian and is traditionally called Lydian-dominant.

Example 5-3:

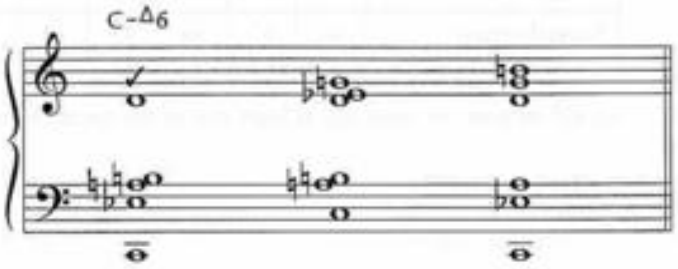


*) Use in tandem with the Mixolydian sus 4 chord.

3. MIXOLYDIAN ♭6 – A darker form of Mixolydian, it has an Aeolian sound and can be confused with Aeolian if the third is not generated in the overtone series by the played instrument (see appendix). This chord is highly recommended for attaining a fresh sound.

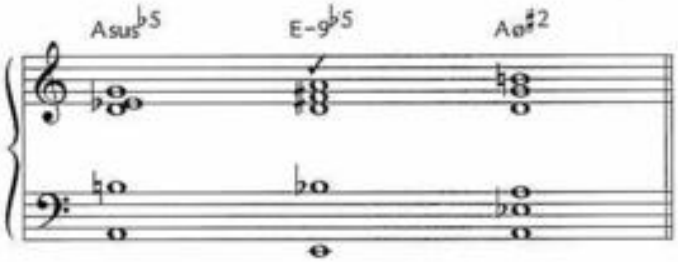
Example 5-4:

4. DORIAN ♮7 – Usually called minor/major seven, the natural sixth in this mode separates it from traditional use. Like Mixolydian ♯4, it is often used in tandem with sus 4 chords.

Example 5-5:



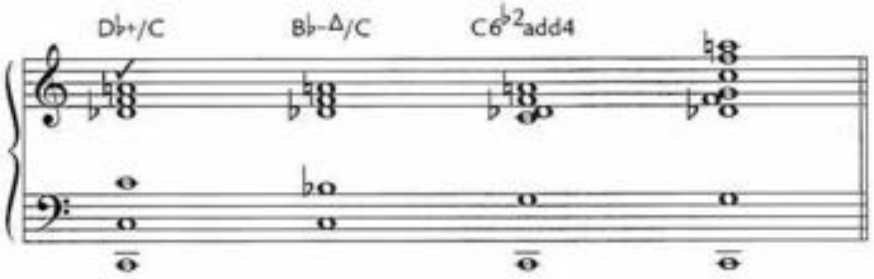
5. AEOLIAN ♭5 – Also known as Locrian ♮2, either name is okay. Although we traditionally use this chord as a ii chord in minor ii-V cadences, the modal use is a "stand alone," non-functional use.

Example 5-6:



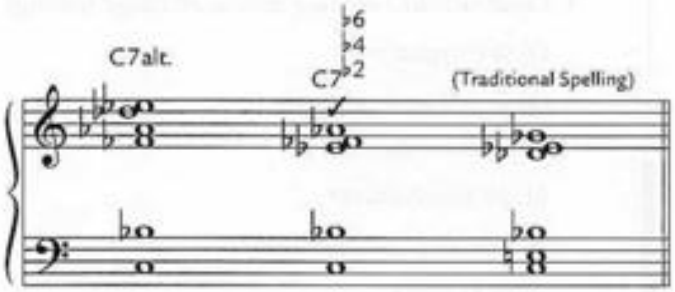
6. PHRYGIAN ♮6 – One of the earliest chords used in the new-modal type of compositions, it first appeared on Herbie Hancock's album *Maiden Voyage*, in the tune "Little One." This chord can sound like a 6/4 chord with a suspended ♭2 and was used that way by Ravel (Daphne et Chloe).

Example 5-7:



7. SUPER-LOCRIAN – Also known as altered, diminished-whole tone and as the Herb Pomeroy scale. It sounds very dominant and functional but we will use it as a "stand alone" modal chord. If flat fours (i.e., Fb) make you uncomfortable, use the often found incorrect spelling of a natural third.

Example 5-8:



We now have two sets of modal chords in our palette. They can now be merged into an order of bright to dark. As mentioned previously, the altered modes are variations of the diatonic modes. If the alteration increases the number of left-sided semitones, the mode is darker. If the alteration moves the semitones to the right, the mode is brighter. With this in mind, the following is the collated order of the modes we have constructed so far.

THE COLLATED ORDER

	EMOTIONAL DESCRIPTION	
1. Lydian-augmented	very frantic	brightest
2. Lydian		
3. Ionian		
4. Mixolydian ♯4	tensely yearning	
5. Mixolydian ♮4		
6. Mixolydian ♭6	romantically hopeful	
7. Dorian ♮7	perturbed	
8. Dorian ♭7		
9. Aeolian ♮5		
10. Aeolian ♭5	romantically confused	
11. Phrygian ♮6	open, hopeful	
12. Phrygian ♭6		
13. Locrian ♮4		
14. Locrian ♭4	bluesy, urbane	darkest

Having our first group of secondary colors added to the palette, we could, at this point, create some interesting groups of chords. There are quite a few compositions within the new-modal type of composition that keep within this limited palette, but we need more – there are three more sets of altered modal chords to investigate and they will be covered in subsequent chapters. Next, we will look at a group of chords that are used primarily for their quality of *sound* or sonority. These are chords that have obscured modality but imply a modality with their acoustic properties.

SUGGESTED EXERCISES

1. Construct the following chords, all mixed spacings. Include chord symbols.
   (a) G Phrygian ♮6
   (b) E♭ Lydian-augmented
   (c) G Mixolydian ♭6
   (d) A♭ Mixolydian ♮4
   (e) D altered
   (f) B♭ Dorian ♮7
   (g) F Lydian-augmented (slash chord)
   (h) G Locrian ♮2

2. Play them in all keys, doing ear training as usual.

3. Use your best calligraphy; use a ruler if needed.

CHAPTER VI

Non-Modal Chords[1)]

WORDS OR CONCEPTS TO KNOW:

1. Add Note Chords
2. Delete Note Chords
3. Suspensions
4. Implied Modality

1) Chords lacking one or more of the modal defining character tones, leaving them without a clearly defined modality.
(a) sometimes the modality is implied acoustically.
(b) sometimes the modality is completed in the melody.

KINDS OF CHORDS

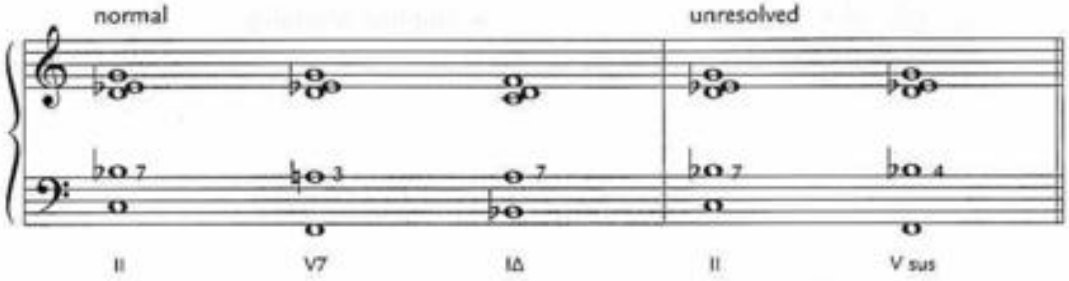
1. ADD NOTE CHORDS - Derived from unresolved cadences, the unresolved note becoming a suspension.
2. DELETE NOTE CHORDS - Chords in which a note is deleted to create a chord spacing which has a particular sonority.

ADD NOTE CHORDS

CHORDS DERIVED FROM CADENCES: These are chords that have a sonority that can be described as having an unresolved quality. They are the result of not resolving the normal voice-leading in a cadence. Although they do not have a modal definition, they have an implied modality, which will be pointed out when the chord is discussed.

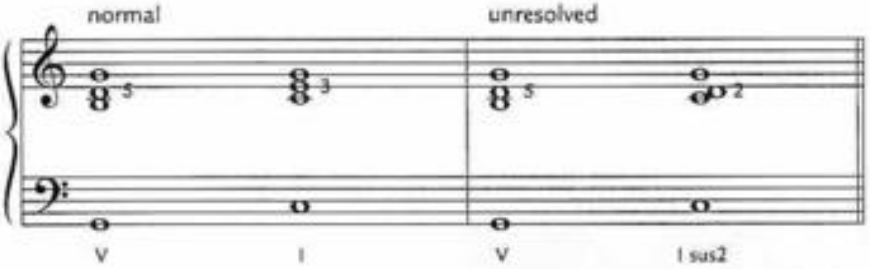
THE MIXOLYDIAN SUS 4 CHORD: Derived from the unresolved II-V cadence, the normal resolution of the seventh to the third is not completed, leaving the seventh to become the fourth of the target chord. Although this chord is treated like a Mixolydian chord, try to consider its quality a product of non-resolution.

Example 6-1:

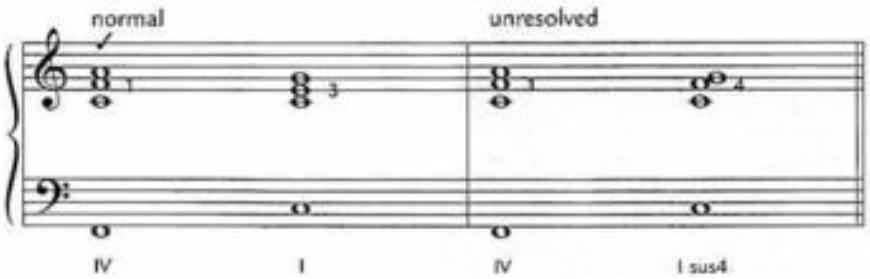
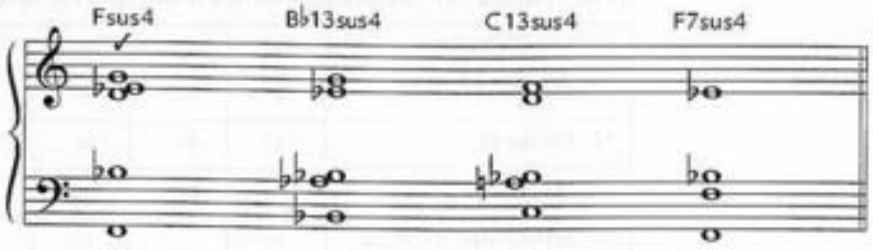


THE SUS 2 CHORD: Derived from the unresolved V-I cadence, this chord is typically a sonority but acoustically can be interpreted as Ionian.

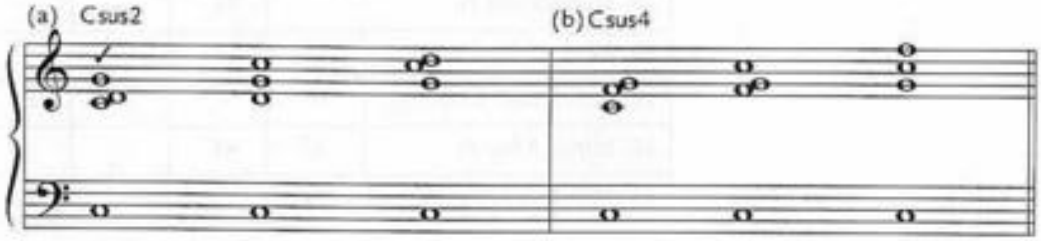
Example 6-2:



THE SUS 4, NO SEVENTH CHORD: This chord is derived from the IV-I cadence, with the normally resolved 1 to 3 suspended and becoming a 4 of the target chord. The chord can be considered Ionian.

Example 6-3:

Example 6-4:

MISSING THE THIRD: This chord could be either a minor 11 or a Mixolydian 11. Because a major third is usually generated acoustically, it tends to sound like Mixolydian.

Example 6-5:



Example 6-5a: Sus 2 – Do not include a sixth with this chord, its quality should be stark – root, major second and perfect fifth only.

Example 6-5b: Sus 4, no 7 – Clearly not Mixolydian; include root, perfect fourth and perfect fifth only.

DELETE NOTE CHORDS

These are chords that have notes purposely deleted to create a particular sonority. Because the missing note is usually a primary color tone, its modality, in most cases, is unclear.

The quality tones that are deleted usually are the primary quality tones.

THE MISSING NOTES

MINOR:

Sixths – not clearly Dorian, not clearly Aeolian

Sevenths – not clearly Mixolydian or Dorian ♮7 (min/maj7)

MAJOR:

Sevenths – not clearly Ionian or Lydian

Fourths – not clearly Ionian, Lydian or sus 4

THE TWO MAIN GROUPS OF THESE KINDS OF CHORDS ARE:

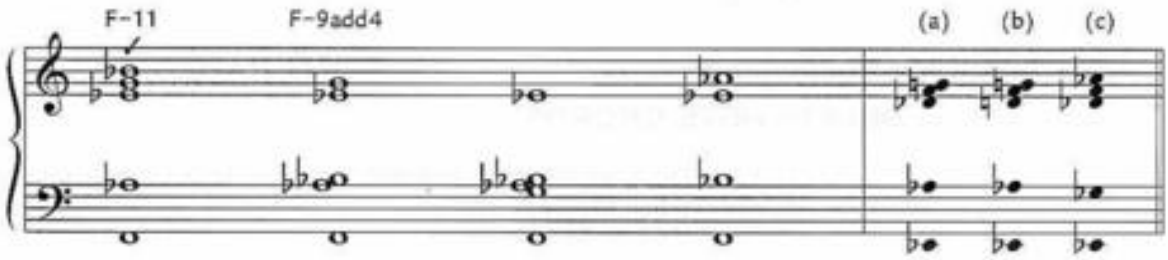
1. Chords with a ♭7, which imply Mixolydian or minor seventh and
2. Chords with a major third, major seventh, or no third or seventh, which imply Ionian.

THE TABLE OF CHORD TONES FOR BOTH GROUPS

1. Mixolydian sus 4	♭7	-	♮4	6	9	5
*2. Mixolydian 11	♭7	♮3	♮4	6	9	5
*3. Ionian ♮4	♮7	♮3	♮4	6	9	5
4. Minor 11	♭7	♭3	♮4	-	9	5
5. Mixolydian 9 (no 3)	♭7	-	-	-	9	5
6. sus 4 (no 7)	-	-	♮4	-	-	5
7. sus 2 (no 3)	-	-	-	-	2	5
8. Major 9 (no 3)	♮7	-	-	-	9	5
9. Major 9 (no 7)	-	♮3	-	-	2	5
10. Minor 9 (no 7)	-	♭3	-	-	2	5
11. Mixolydian 13 (no 3)	♭7	-	-	6	2	-
12. Minor 9 (no 5)	♭7	♭3	-	-	2	-
13. Mixolydian 9 (no 5)	♭7	♮3	-	-	2	-

The following examples of both groups are typical of those found in common practice.

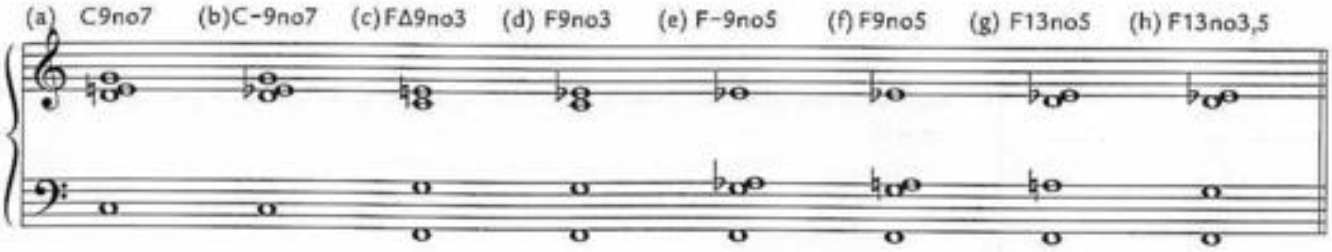
Example 6-6:



Missing the sixth, the minor 11 is *not* dominant nor is it Aeolian. It does tend to sound Dorian because of the strength of the sixth (13th) in the overtone series. The examples (a), (b), and (c) are included here to show the similarities of sound and construction. Keep in mind that (a) Mixolydian 11, and (b) Ionian 11 are defined enough to be considered modal chords and are included here purely for comparison. These chords are also to be compared with the previous Mixolydian sus 4 chords. Notice that these four chords have a 4 or 11 in common, with the differences being the inclusion of a major or minor third and the seventh being natural or flatted.

At this point it should be restated that a chord with a truly definitive modality would have all seven notes of the scale included. It could be argued that all chords with less than seven notes are *nonmodal*. For musical reasons we must compromise, as we are doing now - so we will consider the chord examples given in previous (and later) chapters as complete modalities and the chords constructed in this chapter as *nonmodal*.

*) Definable modal chords included for comparison.

Example 6-7:

Example 6-7a: Compare this with the sus 2; this has a major third and is sweeter, less stark sounding. There is confusion over a suitable chord symbol for this chord. Use root, major second, major third, and perfect fifth only.

Example 6-7b: The minor version of Example 6-7a, missing the seventh; it is unclear but sounds more like minor 7 than min/maj 7.

Example 6-7c: The contemporary voicing of Ionian, a great sound, used much in slash chord harmony (covered later), usually seen as C/F.

Example 6-7d: The Mixolydian version of Example 6-7c, could be C-/F. This inversion was used often by Ravel.

Example 6-7e: The minor second and the perfect fifth give this sonority a great "bite." This is the prototype "new age" chord.

Example 6-7f: The Mixolydian version of Example 6-7e.

Example 6-7g & 6-7h: Implied Mixolydian chords with a good "bite."

There are many more examples in use; to create some of your own, just delete one or two notes from a fully constructed chord, paying attention to the resulting spacing: the combination of seconds, thirds, fourths, and fifths, and then the resulting sound and implied modality.

Before creating your own *delete note chords,* review the principles of chord *spacing* in Chapter III. Striving for a particular sonority, use of major or minor thirds will give you a consonant sound, use of fourths will create starkness, and use of major or minor seconds will add bite.

Mixing the intervals will soften the effect of the individual.

Review, in the appendix, some of the principles of acoustics and you will see why some of the missing note chords imply a modality. To experiment: on a grand piano, pound out an AΔ, no 3 chord with the G♯ on top (E/A), hold the chord and listen intently for the major third to start sounding a few seconds later. Another demonstration would be to play an E♭9sus4 and while the chord is sounding, with a free finger, play a G♭, then try a G natural. Then just play the chord without a third and listen to hear if a third is generated by the overtone series. Try the chord on other roots. Try other chords.

We now have enough chords in our palette to take a break from creating chords and to move on to creating some music. The first step is to organize these chords into a musical whole... so chord connection is the next step, as found on the following pages.

SUGGESTED EXERCISES

Construct the following chords, all mixed spacings; some are from previous chapters for review:

F-11

G Mixolydian ♭6

Dsus2 (no 3)

E♭11

F9 (no 3)

B♭ Mixolydian ♯4

F4 (no3)

D♭Δ4

G Locrian ♮2

A♭ Lydian-augmented

C-9 (no7)

C Phrygian ♮6

E9 (no7)

E♭13sus4

G Phrygian ♮6

F Ionian ♮4

CHAPTER VII

Chord Connection

WORDS OR CONCEPTS TO KNOW:

1. Common Tone
2. Pedal Point
3. Darkness Contour
4. Cadence
5. Harmonic Melody
6. Common Upper Structure

Most contemporary modal jazz compositions have areas where there is a large number of non-diatonically related chords. Depending on the harmonic rhythm, the areas could be called vertical modal or plateau modal. Linear areas have too few chords to require chord connection, and II-V or tonal areas have predetermined chord connection.

The approach to harmonic organization is divided generally into two categories:

1. Harmonic/melodic means and
2. Harmonic/rhythmic means

HARMONIC/MELODIC CONNECTION

There are three categories of connection:

1. A common focal point
2. Contrived contour
3. Melodic manipulation

A. COMMON FOCAL POINT

Offers a point of unification for a group of non-diatonicIly related chords. A common aural focal point.

There are four kinds of common focal points:

1. Single note upper
2. Single note bass (pedal point)
3. Common inner structures
4. Common upper structures

B. CONTRIVED CONTOUR

An attempt to give an ordered contour of tension and release to a set of modal chords.

1. MODAL CONTRAST: Bright to dark, etc.
2. MOMENTUM: Desire to resolve to Ionian
3. CADENCE: Parody of II-V-I
4. MELODIC RESOLUTION of upper/lower neighbor
5. CHORD SPACING

C. MELODIC MANIPULATION

Applied to top and/or bass melodies:

1. Recognizable patterns (symmetric or asymmetric)
2. Organization of contour through the application of melody-writing concepts

PROCEDURES

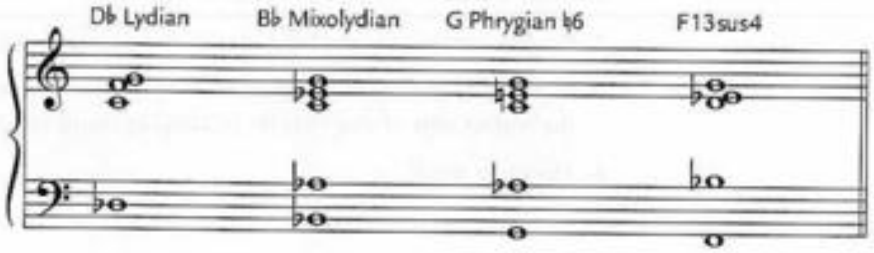
Keep in mind that these nondiatonic areas are usually found at cadences, vamps or any area where activity or tension is desired; there are few compositions that have many areas of vertical modal harmonic rhythm.

COMMON FOCAL POINT

A. SINGLE PITCH, TOP NOTE

1. Select a pitch within the desired tessitura.
2. Create a bass melody (see section on melodic manipulation).
   (a) symmetric pattern
   (b) diatonic motive and development
3. Experiment by playing various chords, voiced with the selected pitch (common tone) on top.
4. Tweak: try different chords or bass melodies until your musical taste is satisfied.

Example 7-1:



Finding common tones – What one needs to know to make this process faster or less painful is the *acoustic source* of any given mode. To review: the *acoustic source* of any mode is the Ionian or altered Ionian with the same flats or sharps used as the given mode (the same key signature).

This could be a large number since a single pitch is not tied to one source.

EXAMPLE: G above middle C has the following acoustic sources:

It is the fifth of C Ionian

the third of Eb Ionian

the second of F Ionian

the seventh of Ab Ionian

the seventh of Ab Ionian b3

the sixth of Bb Ionian b3

and so on...

In addition, your choice of chord can include any from the seven different modes of each of the acoustic sources.

COMMON TONE	MODE	ACOUSTIC SOURCE
G is the #4th of	Db Lydian	Ab Ionian
G is the 13th of	Bb Mixolydian	Eb Ionian
G is the root of	G Phrygian b6	F Ionian b3 (melodic minor)
G is the 9th of	F Mixolydian	Bb Ionian

and so on...

As is shown in the above example, the relationship of the acoustic sources has an effect on the overall sound of the *group* of chords. In this example we find that all the source roots are diatonically related to Eb Ionian or to Ab Ionian. In addition, many of the chord spellings have

diatonicism in common. This would imply that the above example should sound "good," with an overall consonance and an effect of "belonging" together. Keep in mind that this is not always the goal when connecting a group of chords, that modal contrast and contour have priority when selecting your chords.

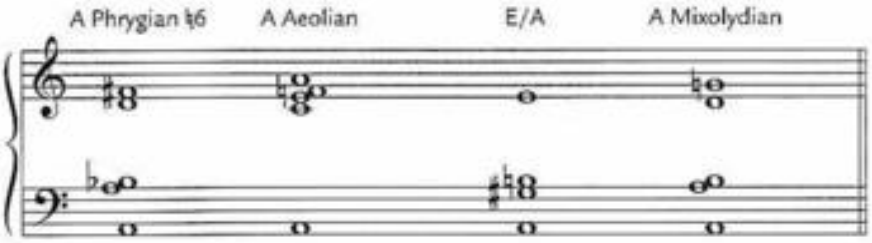
With so many options, the student, at this point, should be quite accomplished with chord spelling: knowing the order of quality tones, as well as knowing the acoustic source of any mode. In addition, the student should have acquired a working familiarization with the sound of the chords through daily ear training. The ability to play the chords in many voicings on a keyboard is a must.

B. SINGLE NOTE BASS PART (PEDAL POINT)

This form of connection is a bit easier to use. It is a traditional technique and familiar to the student. It also is the technique which offers the clearest modal contrast.

1. Select a bass note within the desired tessitura.
2. Create a melody for the top notes of the chords to follow.
3. Experiment with various chords that satisfy your musical tastes. You may want to look at the *contour* part of this chapter to assist in chord selection.
4. Tweak, as usual.

Example 7-2:



MELODIC MANIPULATION (symmetric top melody)

Before we go on, it should be obvious that all of the connecting techniques are to be used in tandem: you need to know melodic manipulation to create the top and/or bass melodies and you need to know modal contour to assist in mode selection. Once you have worked with all the techniques, go back and redo the earlier ones.

Next we will look at chord connection with upper structures[1].

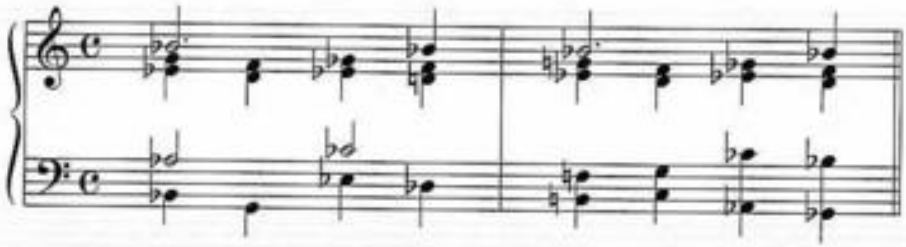
The use of upper structures is a very important part of this text and will be covered later in a chapter of its own. Since they are used in common connection, we have to take an introductory look at them now. *Inner structures* have the same definition as uppers, except that they aren't used for chord construction. They do provide an exotic method of chord connection and will be of interest to composers of classical and/or film score music.

1) A group of notes, two to six, perceived as a single *sonority* or sound. It is this sound that holds a group of chords together as a whole. They are also a key part of the *grip* method of chord construction to be covered in Chapter VIII.

C. COMMON INNER STRUCTURES

Because these structures are found within a chord, a simple interval of a third, sixth, fourth or fifth is a good choice. Any more than a three-note structure may turn out to be too dense within a group of chords, but try a variety anyway.

1. Select a structure; begin with a simple third interval.
2. Create a repeating simple melody of two to five notes within a desired tessitura, keeping in mind that this will be the middle portion of a chord.
3. The top note of the structure is to follow this melody.
4. Next, create a bass melody.
5. Play through the example as it is so far, to get an indication of the modality created.
6. Add a top melody; use common tone on top if desired.
7. Fill in the rest of the chords.
8. Tweak.

Example 7-3: (you name the modes)

SUGGESTED EXERCISES

1. Connect with common tone (CT) on top: F above mid C, Dalt, E♭Δ6/9, A♭13sus4, A–9♭6, E♭13sus4, D♭ Lydian.

2. Compose a 6-chord set with CT on top.

3. Compose a 6-chord set, CT in bass part.

4. Compose an 8-chord harmonic set with both CT bass and top.

Use your best calligraphy, use a ruler if needed, use no key signature.

CHAPTER VIII

Upper Structures

WORDS OR CONCEPTS TO KNOW:

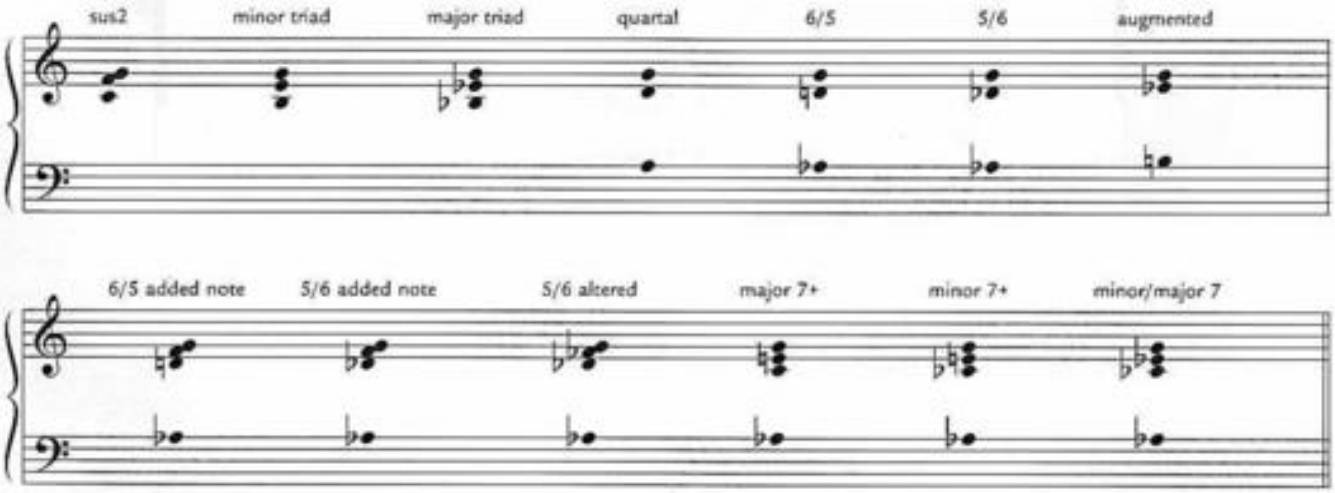
1. Upper Structure
2. The Grip
3. Shape
4. 5/6, 6/5
5. Sonority

CHORD CONSTRUCTION

Chord construction with upper structures is known as the *grip* or shorthand method of chord construction. The grip is the actual finger positions of the right hand when playing a chord. There are seven basic grips used to create all the chords found in this text. With this method, one does not need to know the theoretical foundation of chord construction to form chords. Hence, this is a quick, "shorthand" method. This method is derived from keyboard performance and the chords are typical of those you hear on contemporary jazz recordings, particularly by the younger players: Joey Calderazzo, Kenny Kirkland, and Jim Trompeter, to name a few. This kind of chord voicing also is the predominant sound found on fusion, ECM, and new age recordings.

The upper structures are a basic three-note group, but a fourth note can be added for further definition if desired. Keep in mind that the structure is a "shape" and a sonority. The following is an example of the structures and their derivation. [Note: The abreviation US will be used to mean upper structure.]

Example 8-1: Upper Structures



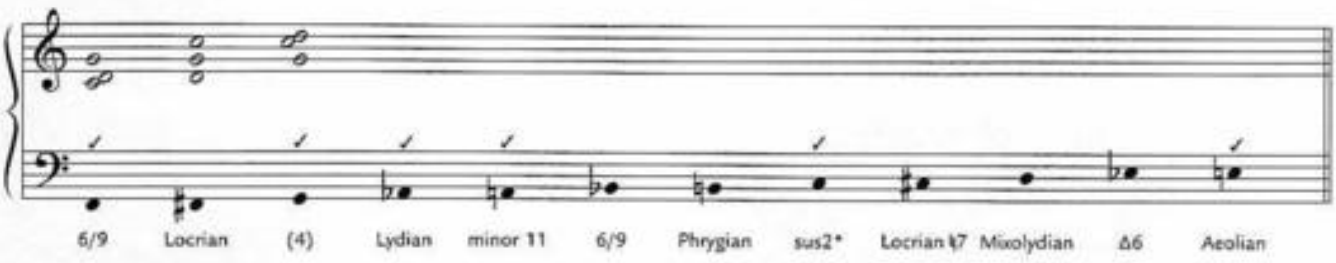
The most used of these structures are the sus 2, quartal (inversion of the sus 2), the major triad, and what I have termed the 5/6 and the 6/5, named from their intervalic formulae. Also, there is a group of Phrygian upper structures which are derived from inversions of the 6/5.

1. THE SUS 2 UPPER STRUCTURE

This structure is the one found in earliest recorded use. There are many chords formed using this structure, as already found in this text. This was a very popular choice of chord construction in fusion music of the '60s and '70s. Made up of a second and a fourth within a fifth, it has a great combination of bite and starkness.

Of the following examples, the chords with the checks are the preferred and most used.

Example 8-2: Modal Chords Created With the sus 2 US



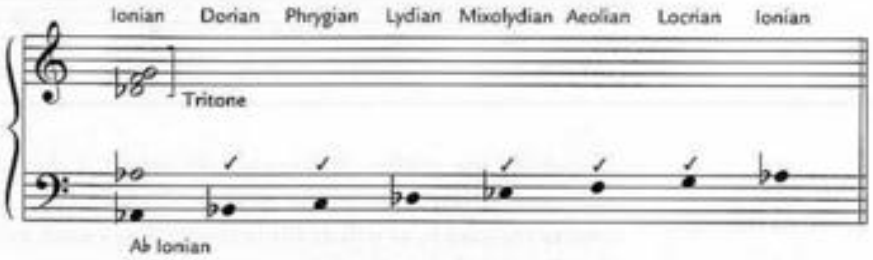
*) Derivation of the structure name.

[Note: Triadic US will be covered in Chapter XIII "Slash Chords"]

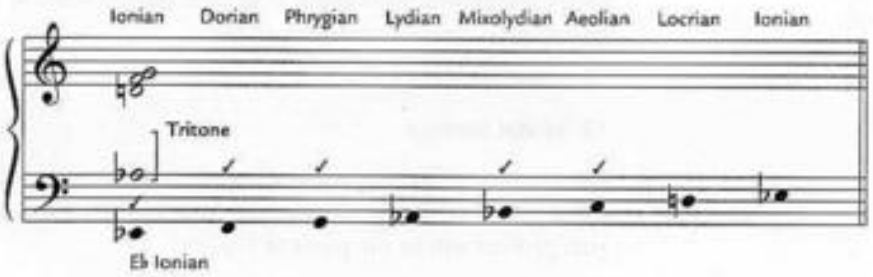
The 6/5 and 5/6 upper structures are the ones found most often on contemporary recordings, particularly on ECM, fusion, and pop-jazz recordings. These US require the knowledge of their root acoustic source Ionian mode. This is found by locating the tritone in the US – the upper note being the leading tone (7th degree) of the root Ionian. You can also create some interesting chords by experimenting with the chromatic scale as roots. The 6/5 US is the basic structure found in the chords of harmonic major and will be reintroduced in that chapter.

2. THE 5/6 US

A combination of five semitones (perfect fourth) and six semitones (tritone)

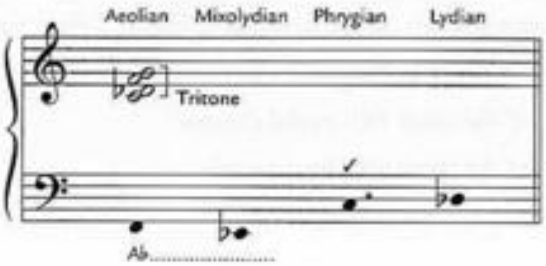
Example 8-3:

3. THE 6/5 US

A combined tritone and perfect fourth (six and five semitones)

Example 8-4:

Note that in the above two examples, the US was not a good choice for the construction of Lydian. Because Lydian implies another acoustic source, one primary color tone is missing.

4. THE PHRYGIAN US

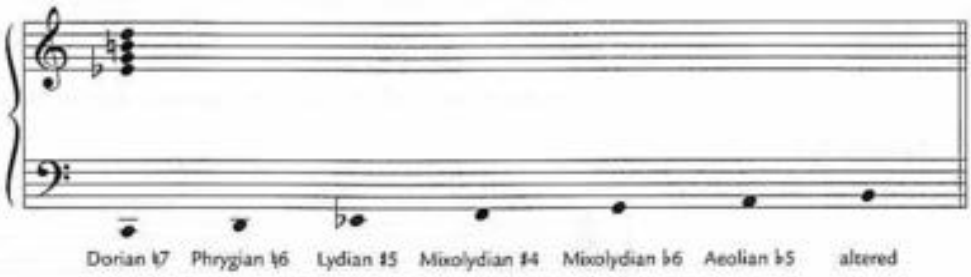
This is actually an inversion of the 6/5; it is so used in its Phrygian inversion that it must be considered as a separate US.

Example 8-5:

*) The named structure

5. THE MELODIC MINOR GRIP

Used often in constructing chords from the altered Ionian ♭3, melodic minor mode. The grip by itself is a Lydian-augmented chord. It is a tertiary upper structure which contains the very definitive augmented triad. The grip is placed on the minor third of the acoustic source. I.e., E♭ for C melodic minor.

Example 8-6:



Hopefully, the student has recognized many of these constructions as being found in examples of mixed spacings in previous chapters. Using this method of chord construction creates the easiest, as well as the best sounding chord, as is evidenced by how often they are found on the latest recordings.

This subject will be covered more in the chapter on three-part upper structures (XIV) and the chapter on harmonic major and melodic minor ♭5 (XV).

CHORD CONNECTION

Chord connection with upper structures follows some of the same principles as given in the section on diatonic chord connection.

1. Common focal point
2. Modal contour

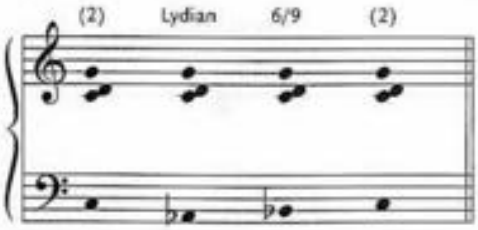
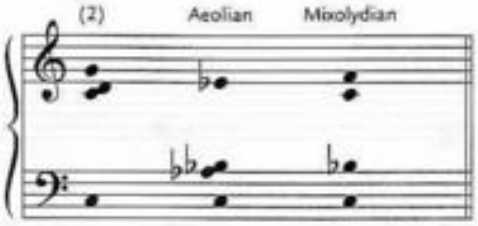
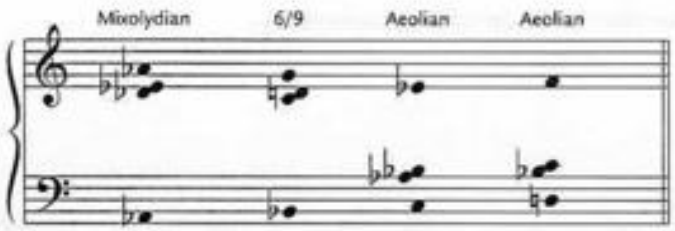
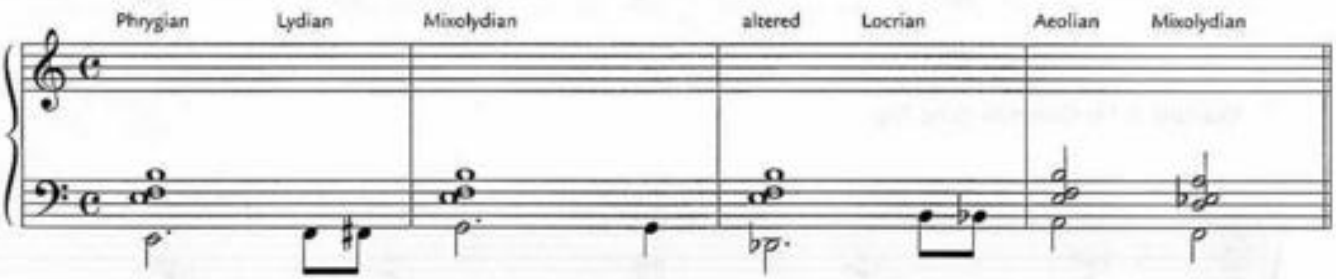
The principle difference is that where we worked with a single note or a melodic line of single notes, the aural focal point in this case is the structure itself. The sound of the vertical arrangement will be the point of focus.

Because of this, the student should remember that whatever US is selected for use should remain in the selected inversion throughout the phrase of use. Changing the inversion would change the sound of the US and negate the common connection.

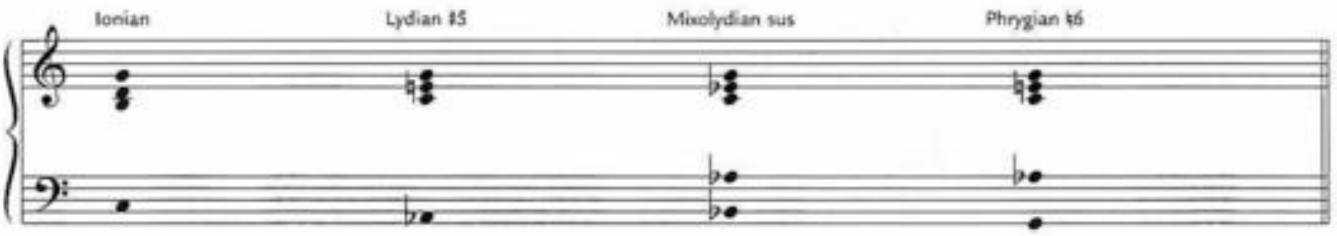
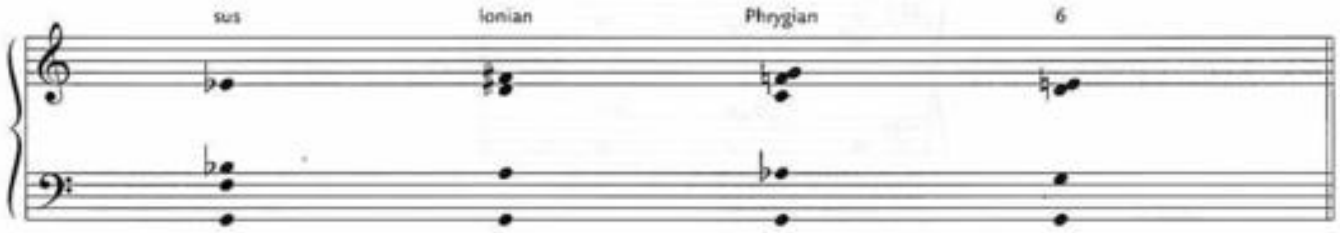
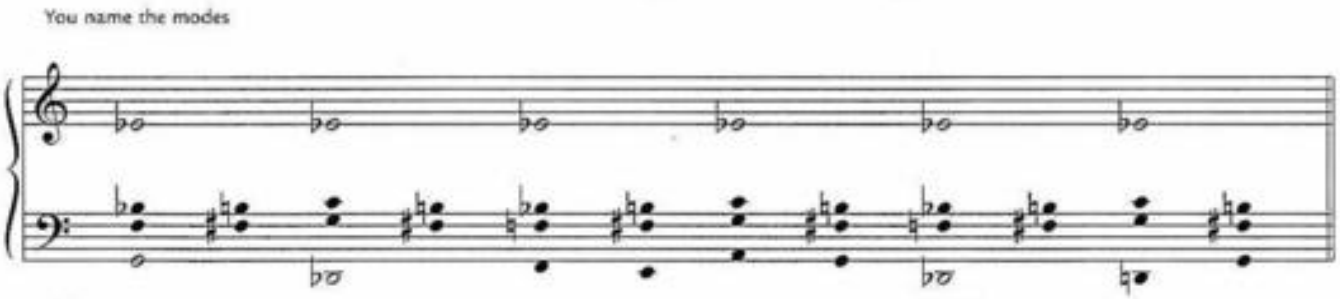
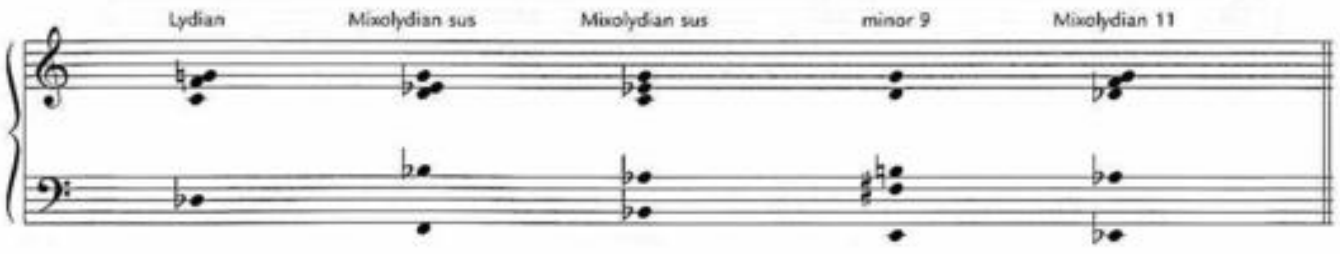
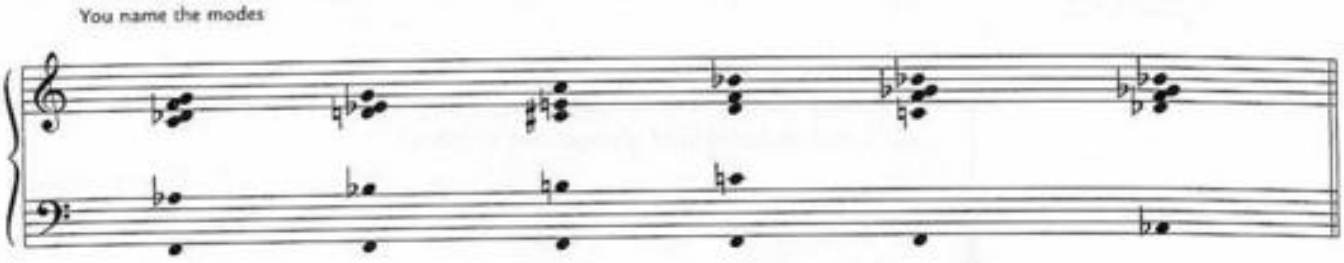
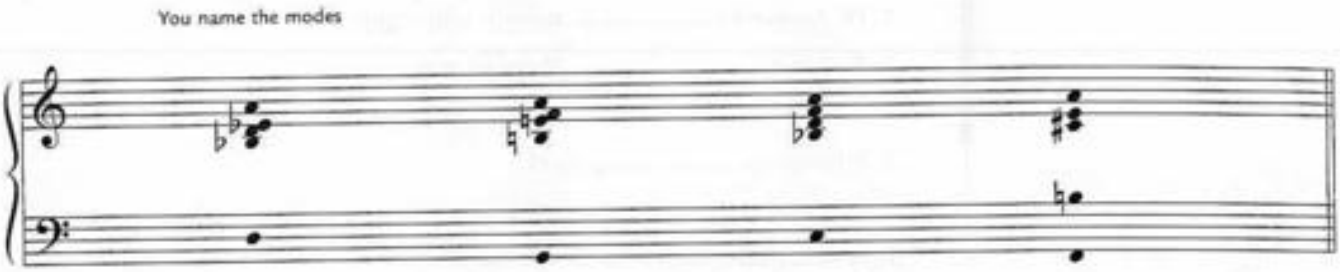
Normally, only three upper structures are used for chord connection: the sus 2, triads, and Phrygian. The sus 2 US is easily the most used in jazz and fusion compositions. Triad US use is predominant in pop music and has some use in pop/jazz and new age types of compositions. All forms of US use are found in all the musics, to some degree.

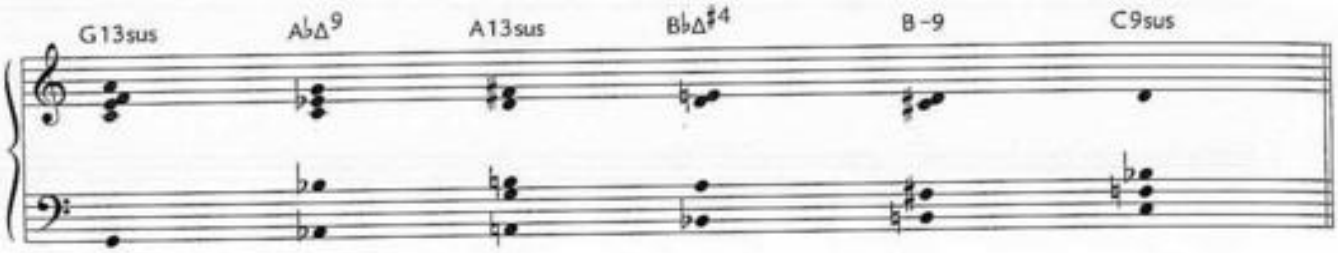
METHODS OF COMMON UPPER STRUCTURE CONNECTION

1. Common upper structure, bass melody
2. Common roots, upper structure following a given melody
3. Upper structure following a given melody, with roots following a given melody
4. All of the above with modal contour
5. All of the above with final cadence .

Example 8-7: Common US With Bass Melody

Example 8-8: Common Tone Bass, Top Melody

Example 8-9: Top and Bass Follow Given Melody

Example 8-10: Common US, Bass Melody, Added Harmonic Rhythm, Cadence

POINTS TO REMEMBER:

1. The vertical arrangement of the US should not change (invert); this would change the sonority, losing the common quality which binds the group together.
2. The common link of the US is not lost by arpeggiation – try it.
3. As with common tone connection, knowing the acoustic source of the implied modality will assist in reaching the harmonic goal.

Example 8-11: Common Tone on Top, Bass Symmetric Melody

Example 8-12: Common Bass, Pedal Point

Example 8-13: Common Inner Voice Structure, Common Top

Example 8-14: Common Tone Top

Example 8-15: Pedal Point With Contour Cadence

Example 8-16: Common Tone Top, Symmetric Melody Bass

Example 8-17: Melodic Patterns, Top: Ionian Mode; Bass: Chromatic Scale, Contrary Motion



SUGGESTED EXERCISES

Construct the following chords by the *grip* method only; label the grip under the chord (5/6, sus 2 etc.); include chord symbols over the chord.

1. E♭ Ionian ♮4 ..... 6/5
2. F♯ minor 11 ..... sus 2
3. F Aeolian 5/6
4. B♭ Dorian 5/6
5. D♭ Aeolian ♭5 ..... melodic minor grip
6. E altered ..... Phrygian grip
7. F Aeolian ..... Phrygian grip
8. F Ionian 6/5
9. C Aeolian ..... sus 2
10. G Mixolydian ♭6 ..... melodic minor

CHAPTER IX

Completing the Chord Connection Process

WORDS OR CONCEPTS TO KNOW:

1. Clave
2. Vamp
3. Contrived Contour
4. Parody Cadence

Although playing the previous examples are harmonically satisfying and the chords sound good, they are not examples of music.

In order to make the examples musical we need to apply all of the elements of music to the skeletal harmonic scheme: harmonic rhythm[1], tempo, harmonic contour, with its implications of development, and some form of melodic statement and development.

These will all be covered eventually, but the first step is to give the examples harmonic rhythm.

As mentioned earlier the given examples of common connection are used primarily at cadential areas, which would be found at the ends of sections of a composition or at other areas that require an increase in tension or activity. They are also found in introductory areas where a statement of the premise of the composition is desired.

These areas are usually repeated until the effect is clear. The name for this event is a *vamp*[2].

The first step in our creative effort is to compose a number of these vamps to be used as starting points in the creation of a whole composition.

Recall that the primary emphasis of this book is on *jazz* composition techniques.

PROCEDURE

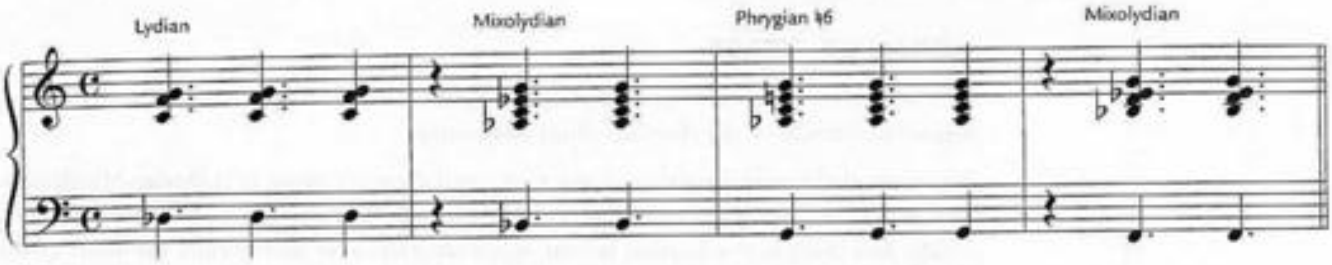
1. Select your favorite set of common connected chords.
2. Compose or select from the public domain, a two bar rhythmic pattern – the Bossa Nova is a good first selection:

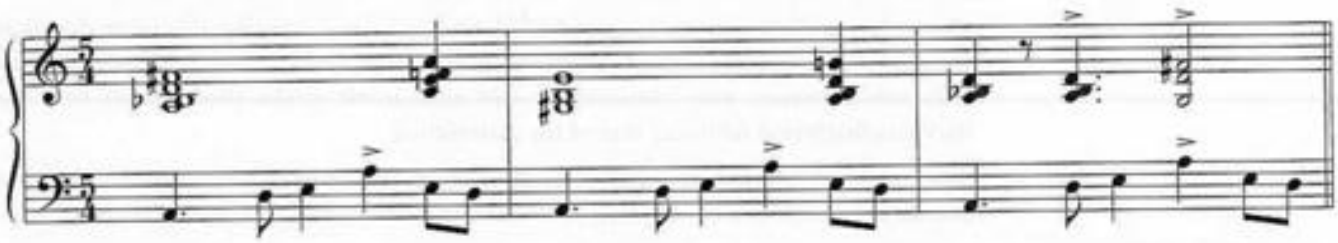
Example 9-1: Bossa Clave

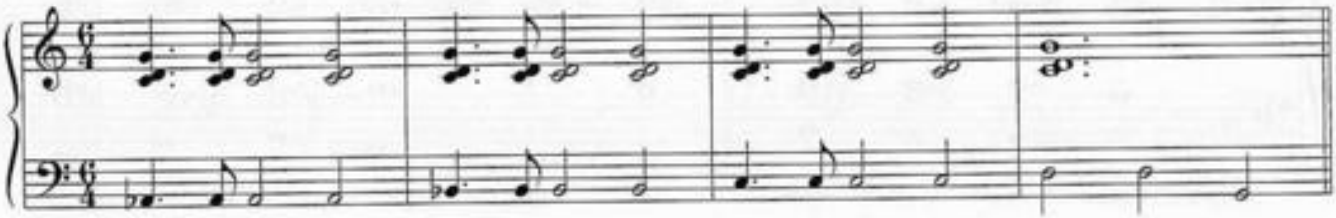
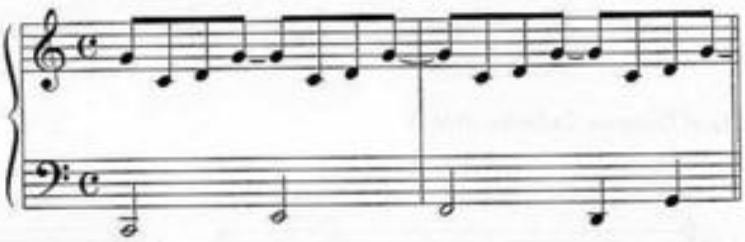
3. Determine where you want the chords to change on the clave pattern; it could be a change with every clave change or a change every two, or with variations of the clave pattern. In other words, the first chord for the first two clave tics, the second chord for the next clave tic, etc.
4. Compose a bass rhythm based on the clave pattern.
5. Play and tweak as usual.

1) The systematic relationship of the duration of each in a group of chords which shows contour and development.

2) Repeated harmonic/rhythmic figure, usually 2 to 4 bars in length which follows a preset rhythmic pattern called a clave. There is a melodic motif in the bass part and a recurring set of harmonically related chords. Vamps are found at cadential areas, turnaround areas and the introductory and closing areas of a composition, or anywhere that rhythmic emphasis is desired.

Example 9-2: Common Tone, Top Note

Example 9-3: Common Tone Bass (Vamp)



Example 9-4: Common US on Top

Example 9-5: Common US on Top, Arpeggiated

Example 9-6: Common Bass, Phrygian US

CONTRIVED CONTOUR

MODAL CONTRAST

This is where we use the order of darkness/brightness of the modes. It is an attempt to give a sense of contour to the chord-to-chord relationship.

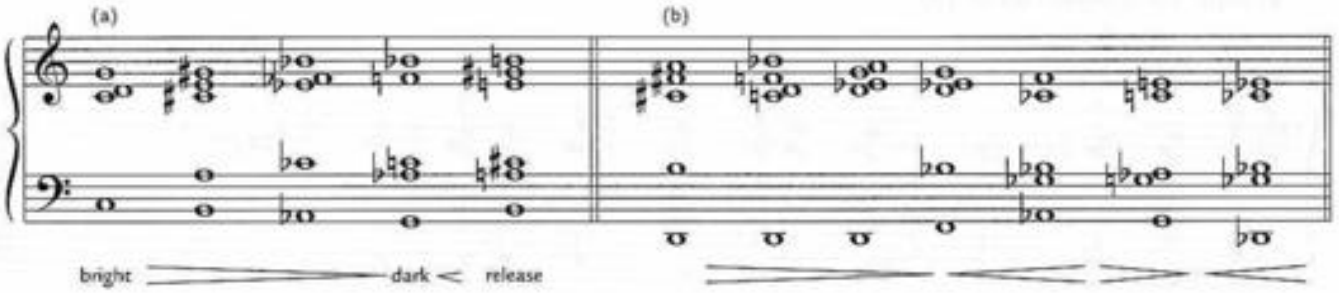
If you recall the modal contour of the traditional *diatonic cadence,* it is Dorian-Mixolydian-Ionian. That is an order of dark, brighter to brightest. It is also an order of less stable to most stable. And being in the diatonic system, it is a satisfaction of momentum: the desire of the chord roots to cycle to the tonic root.

Although the harmonic vocabulary of this book is mostly contained in a chromatic environment, we can use the diatonic cadence as a model for obtaining harmonic contour.

The options include root movement of a fifth but with a modal relationship other than that found in the diatonic formula; the diatonic modal formula with chromatic root relationships and both chromatic root relationships; and nondiatonic modal selection but with the darkness/brightness following that of the diatonic use.

The most used process is to simply contrast the brightness/darkness of the modes to obtain a sense of contour and development, without any reference to the diatonic system.

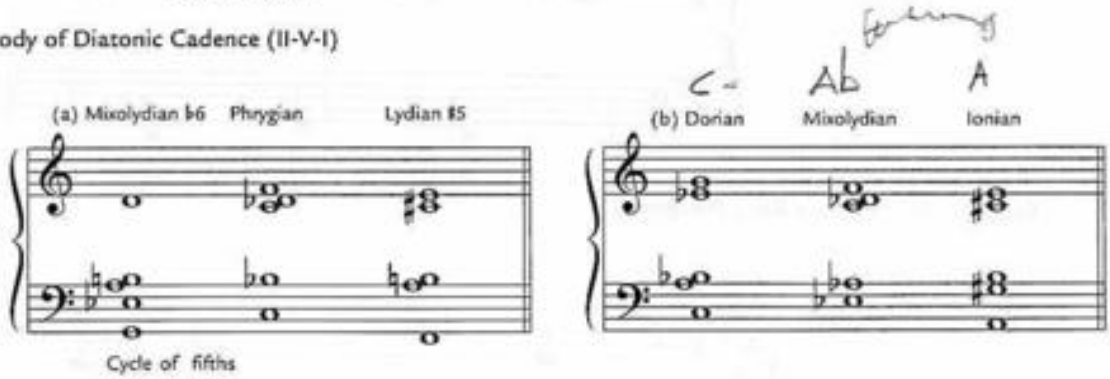
Example 9-7: Modal Contour



(a) Typical use: increase of tension to a release. Contrary directions of the top and bass melodies enhance the effect. A skip of a third, fifth or tritone to the release chords is recommended. Lastly, notice the change of chord spacing.

(b) Use of pedal point: overall melodic direction downward. Use of tritone skip to final release chord.

Example 9-8: Parody of Diatonic Cadence (II-V-I)



(a) Root movement like diatonic cadence, free-form modality.

(b) Diatonic cadential modal formula, free-form bass melody.

MELODIC MANIPULATION

1. TOP MELODY

   Not the actual melody of a composition, but the melodic shape or contour that all the top notes of a group of chords, if spelled out, would create. Of course, we are going to work in the opposite way: spell out our chords to follow a preset melody.

2. BASS MELODY

   The actual melodic quality of the bass part if played by itself. Because the nondiatonic modal system we are working in is not tied to root movements of a fifth, we need to work with our bass melody just as if it were the actual melody of a composition.

3. RECOGNIZABLE PATTERNS

   Creating a set of chords that follows a melody which is easily recognized by the listener is a quick and easy way to gain musical accessibility. Symmetry just plain "sounds good." But you must use it conservatively, as it can quickly become contriviality.

   Another approach is to use an asymmetric source which is familiar to the listener: a mode or tetrachord or any known melody or melodic fragment.

4. MELODIC EFFECTS

   Lastly, following the concepts of melody writing (as found in Volume 2), you can create a contour by manipulation of the intervalic relationships and by working with the overall direction of the melody by phrases (the top and bass melodies).

SUGGESTED EXERCISES

1. Compose four 2-bar claves.
2. Compose a 4-chord vamp, using sus 2 US with a composed bass melody.
3. Compose a 4 to 6-chord vamp using compound meter, with your choice of US; have the US follow a given melody and the bass be pedal point.
4. Compose an 8-bar harmonic scheme, starting with a 2-bar vamp, with the remaining six bars showing use of common tone, pedal point, and modal contour. Use at least six chords.

Try to be musical; approach this exercise as an artistic assignment rather than an academic one. Create a result you like so much you want to play it for someone.

CHAPTER X

Form

WORDS OR CONCEPTS TO KNOW:

1. Song Form
2. Through Composed
3. Sectional

As mentioned earlier in the text, most of the compositions in the free chromatic modal system are also free in their form. This freedom also means that you are free to use traditional forms if you so desire. Although most of the compositions are free-form, some are still organized by the song form. Particularly if the composition has ties to traditional style, like the new bop kind of composition.

Some of the forms we will see are.

1. SONG FORM

   Usually symmetric, with 8 bars per section, following the traditional AABA, an A section, its repeat, a new section then a repeat of the first A section, giving a total of 32 bars.

   Variations are usually in the use of varying the bar numbers of the sections.

2. THROUGH COMPOSED

   Composed from beginning to end without a concern for development by repetition of sections. The development is by modal/emotional contour.

3. SECTIONAL

   Not song form, but does have clear sections, some of which can be repeated. Some examples have sections that although not direct repetitions, are obvious variations of previous sections.

The main point is not to be as concerned about form as you should be about harmonic development.

SUGGESTED EXERCISES

Listen to eight of the compositions listed in the discography, plot their form as AABC, ABCCDA, or whatever the form is.

List the name, source and the form.

Example: "Pee Wee" by Tony Williams from *The Sorcerer,* Miles Davis - through composed, 21 bars

"Masqualero" by Wayne Shorter from *The Sorcerer,* Miles Davis - ABC, A = 8, B = 6, C = 4 total = 18

CHAPTER XI

Harmonic Contour[1)]

WORDS OR CONCEPTS TO KNOW:

1. Harmonic Rhythm
2. Repose
3. Transition
4. Climax
5. Cyclic Resolution

1) The overall organization of a number of modal chords into a unified musical whole, showing development and contour.

METHODS OF ORGANIZATION

1. Common tone connection
2. Common upper structure
3. Harmonic rhythm of the chords
4. Melodic rhythm of bass line
5. Darkness and momentum cadences (see p. 60)
6. Overall harmonic rhythm – vertical, plateau, etc.
7. Point of climax
8. Relationship of first to last chord

CONTOUR BY HARMONIC RHYTHM

1. Repose/Transition – Gives shape by contrasting fast and slow harmonic rhythm.
2. Repose – An area within the chord scheme in which there are two or more chords with the same root (pedal point) or only one chord for a bar or more. Like linear modal, these are areas of inactivity and rest.
3. Transition – Areas with two or more chords with different roots, or chords of short duration, usually changing one bar or less depending on tempo. These are the areas of activity and are usually vertical modal. Tonal harmony is also found in these areas.
4. If repose areas are long, a bass part vamp may be needed to add rhythmic interest.
5. Transition areas should be devised to increase tension just prior to a repose area.

CADENTIAL AREAS

1. Should be placed just prior to repose areas or at the ends of phrases or sections.
2. Use darkness/brightness for longer areas.
3. Use momentum, II-V, II-V-I parody cadences where strong "finality" is desired.
4. Use melodic manipulation to enhance the above or where subtle contour is desired.

POINT OF CLIMAX

It should be mentioned, now, that a main goal of the harmonic contour is to provide the improvisor with a "map" to assist in creative development of the improvisation. The harmonic and rhythmic contour should be designed with that in mind.

A point of climax, a place where the emotional intensity is at its peak, should be plotted. Refer to the following examples for an indication of general area of placement. Ideally, the decision will be made by mature musical judgment. Usually, the climax is found at the end of the most intense transition area just prior to the most relaxed repose area.

CYCLIC FORM

Again, with the improvisor in mind (who most likely will be *you!*), in order to make it easy to punctuate a chorus of improvisation and allow the setting up of a new chorus, it is recommended that the first chord and the last chord of repeated sections relate in a way that assures an easy access to melodic voice-leading. The clearest means is for the last chord of a section have a dominant function to the target chord (first chord of the repeated section). The last chord should be built on a root that is a fifth away, a tritone, away or of an upper or a lower neighboring tone with a modality that is darker or has less stability than the target chord. For example, if the first chord of a section is F Lydian-augmented, the last chord could be C

Mixolydian sus 4, C Phrygian, E altered, or Gb–11, to name a few possibilities. There are many techniques for doing this and more will be given in later chapters and in following examples.

Creating a harmonic contour is the process of organizing the chords, connected with devices from the preceeding chapter into a complete musical whole. Not all the techniques will or should be used. The goal is to create a set of chords that are both musical and "playable." Attaining beauty with simplicity is an attribute that is acquired with maturity.

Before you are to create your own complete set of chords for a composition, we will analyze a number of compositions to see how the composer accomplished the above procedures.

ANALYSIS OF EXISTING COMPOSITIONS

Analysis of the harmonic hows and whys of a composition requires a comprehensive mastery of all the concepts that have been covered so far. In addition, speed of recognition will keep the process from becoming overbearing. Occasionally, the student can become distressed, overcome by an apparent ambiguity created by the availability of so many ways of explaining how the harmonic contour is derived. Try to remember that there is no absolute explanation for any compositional method.

THE PROCEDURE

Start by spelling out all the chords. Try to determine if US technique for chord construction was used. A listening to the recording, if available, would be helpful but not necessary.

Look for a general melodic contour of the top notes of the chords. You may need to invert some chords or change the construction method to give smoother voice-leading.

When satisfied, write down only the top and bass melodies and any pertinent harmonic data: common US, important color tones, etc.

Analyze the bass, then the top melodies.

Make note of melodic devices that may be of importance:

1. Motific development: sequence, repetition, etc.
2. Symmetric patterns
3. Tessitura
4. General directional contour
5. Active and tense or relaxed

Arrange the chords in a way that the harmonic rhythm can be visualized: long values as whole notes, short as a quarter. The chords do not need to be spelled with the original note values, but if there is an important vamp figure, do write out the note values. If there is a long area with one chord only, label the duration by measures. And lastly, number each chord for reference. Once the melodic analysis is complete, refer to all the methods presented in the previous few chapters and label: common tone, repose/transition, common upper structure, etc.

Hopefully, studying the following examples will clear up any confusion.

The first four examples are compositions similar in harmonic style and emotional content. Their harmonic rhythm comes close to the prototypical vertical modal in areas, if not the whole tune. They can generally be described as having a generally darkly romantic mood, varying according to tempo and key. They are all free-form, chromatic, with no clear key center, although one could pick a pivotal key area from their beginning and ending chords. They all contain a good variety of modes.

The second group of compositions has a more "open" harmonic rhythm, with the first two of

them clearly plateau modal and the third almost within the linear modal category. In addition, the first three of this group are more "traight ahead" player's tunes, each with subtle ties to qualities that are typical of bebop tunes.

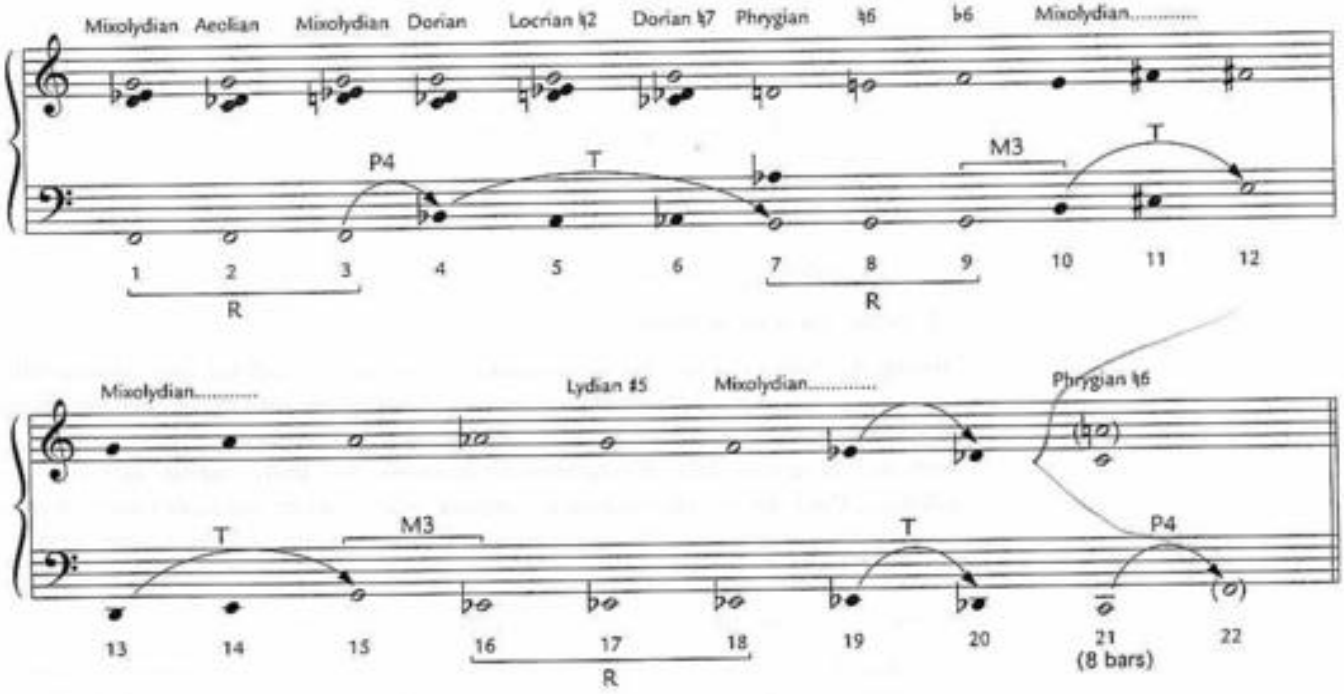
The last tune of this group is representative of the European-influenced ECM style of composition, with a few subtle references to American folk harmony. Each composition to be analyzed will have an example of the chords spelled out with harmonic rhythm but not all the rhythmic figures. The example should be sufficient for reference. Also, the chord spellings are not direct transcriptions but quite close in most cases.

In the actual analysis with comments, using the harmonic synopsis as reference material, one could get very detailed with compositional analysis, with references to all the esoteric theory methods at one's disposal: Shenker analysis, the "Lydian Chromatic Concept," etc. The thrust of the following is to "get to the point" and keep it simple.

In addition, keep in mind that the goal of harmonic contour analysis is to discover how the composers of these great tunes used the methods that have been given in previous chapters of this textbook.

1. RUTH[1] – RON MILLER, 1969

This composition shows an influence of the Herbie Hancock tune "Little One," found on the recording *Maiden Voyage*. Its predominant theme is that of gentle romanticism. It is a through-composed waltz, 36 bars with no repeated sections. Its harmonic rhythm, fairly symmetric and fast, can be described as vertical modal.

Example 11-1:

COMMENTS

A. BASS MELODY:

CHORDS:

1-3 repose (pedal point), skip of a fourth to...

4-6 ...transition area, downward chromatic melody, relaxes to...

1) CCP/Belwin SB266

7-9 ...repose, slightly higher center, preparation for activity
10-12 very active transition area, dominant cycle
13-15 sequence of 10-12, increase of tension
15-16 inversion of 9-10
16-18 very relaxed repose area with low tessitura
19-20 melodic figure, occurs always, acts as signpost or "hook," also short transition to...
21 long repose area, root has desire to resolve to...
22 ...the first chord of the tune

B. TOP MELODY

CHORDS:

1-6 common tone connection
7-9 upward melody, increased tension
10-12 continued upward trend, increased tension, 11-12 common tones
13-15 sequence of 10-12
14-15 common tone connection
16-18 downward flow, relaxing, 16-21 Ab Ionian
19-20 recurring melodic idea, signpost or "hook"
21 doubling of bass emphasizes sense of finality

C. HARMONIC MATERIAL

CHORDS:

1-6 common inner structure
1-4 common diatonic source – Bb Ionian, Ab Ionian
5-6 chords voice-led
7-9 darkest area, diatonic source: Eb Ionian
10-15 quasi-dominant cycle, very active, setting up the...
15 ...point of climax
16-18 upper structure tritone pattern – Db/Eb, G/Eb, Db/Eb; diatonic source: Ab Ionian
19-20 no chord – "hook" melody, point of reference
21 final chord, exotic yet dominant sound, desire to resolve to first chord

D. GENERAL QUALITIES, EMOTIONAL CONTOUR

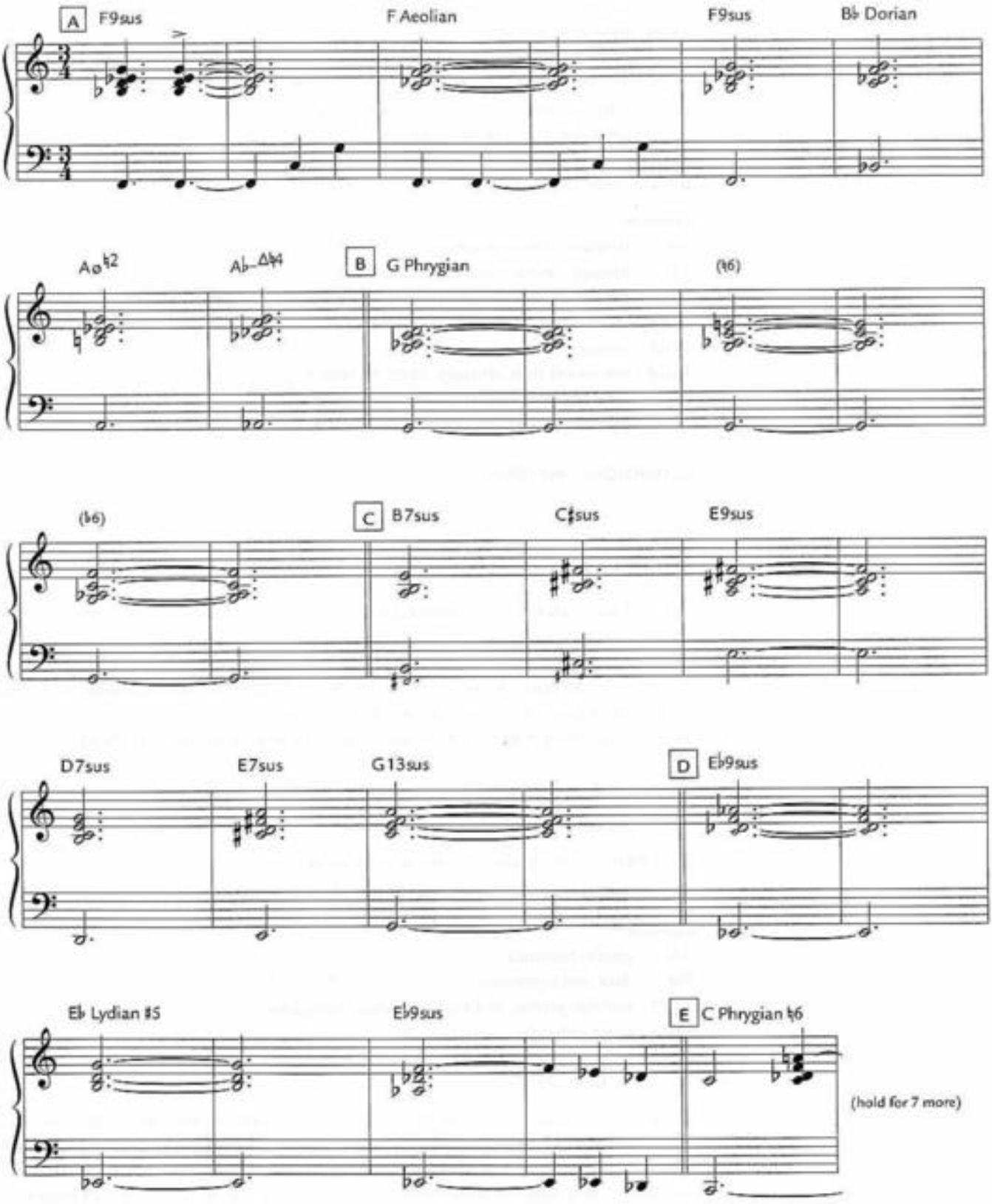
1. Symmetric repose/transition areas
2. Diverse modality, clear emotional contour or "map"
3. Three main diatonic areas – Bb, Eb and Ab, implied cycle

CHORDS:

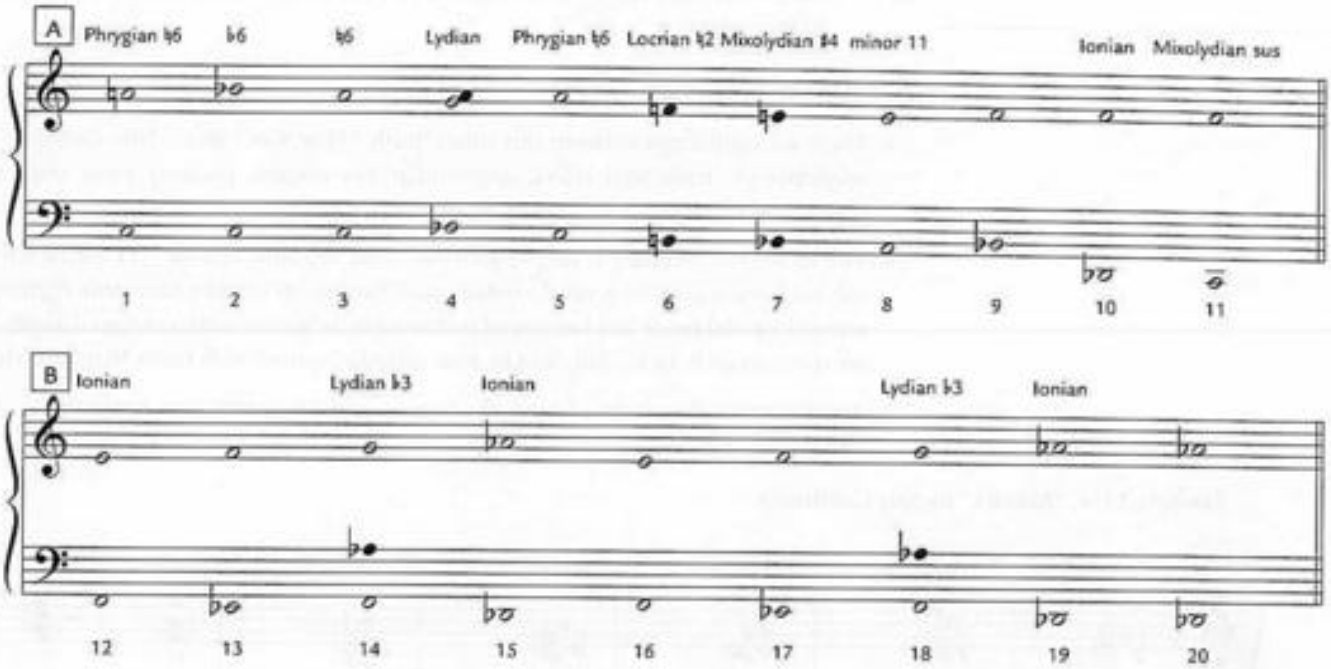
1-6 gentle, romantic
7-9 dark and mysterious
10-15 increase activity and tension, almost swinglike
16-18 quite romantic
19-20 point of reference
21 exotic, "colors" area

The above emotional contour provides a clear "map" for the improvisor as well as the listener. Keep this in mind when creating your own set of chords. By mapping out the diatonic acoustic sources of all the chords, one can both gain an insight into the harmonic contour and determine a source of substitute chords. As an example, the first chord, F13sus4 implies F Mixolydian with the source of Bb Ionian, so the first chord could be Eb Lydian, D Phrygian or any of Bb Ionian's modes. The second chord, F Aeolian's source is Ab Ionian, so the substitution of an Eb Mixolydian 13 for that chord does work well, in fact it is used occasionally to get a "Killer Joe"[1] sound.

1) Benny Golson composition

Example 11-2: "Ruth" by Ron Miller

2. MIKELL'S[1] – JOEY CALDERAZZO, ca. 1989

Having symmetric harmonic rhythm and overall positive emotional stance, this is a nice "player's tune," the harmonic rhythm is fast enough to imply vertical modal.

Example 11-3:

COMMENTS:

A. BASS MELODY

CHORDS:

1 - 5 repose, with pedal point, the D♭ is diatonically related to the C pedals, both are related to B♭ melodic minor
6 - 7 a short transition area, downward flow, heading for...
8 - 11 ...an ending to the first emotional area
12- 15 four note motif, new area, new mood
16- 19 repeat of 12-15
20 extension of 19 for cadential purposes

B. TOP MELODY

CHORDS:

1 - 9 diatonic melody derived from primary color tones
10- 11 common tones
12- 15 upward contour, positive building of intensity, Spanish tetrachord
16- 19 repeat of 12-15
19- 20 common tone by repetition

C. HARMONIC MATERIAL

CHORDS:

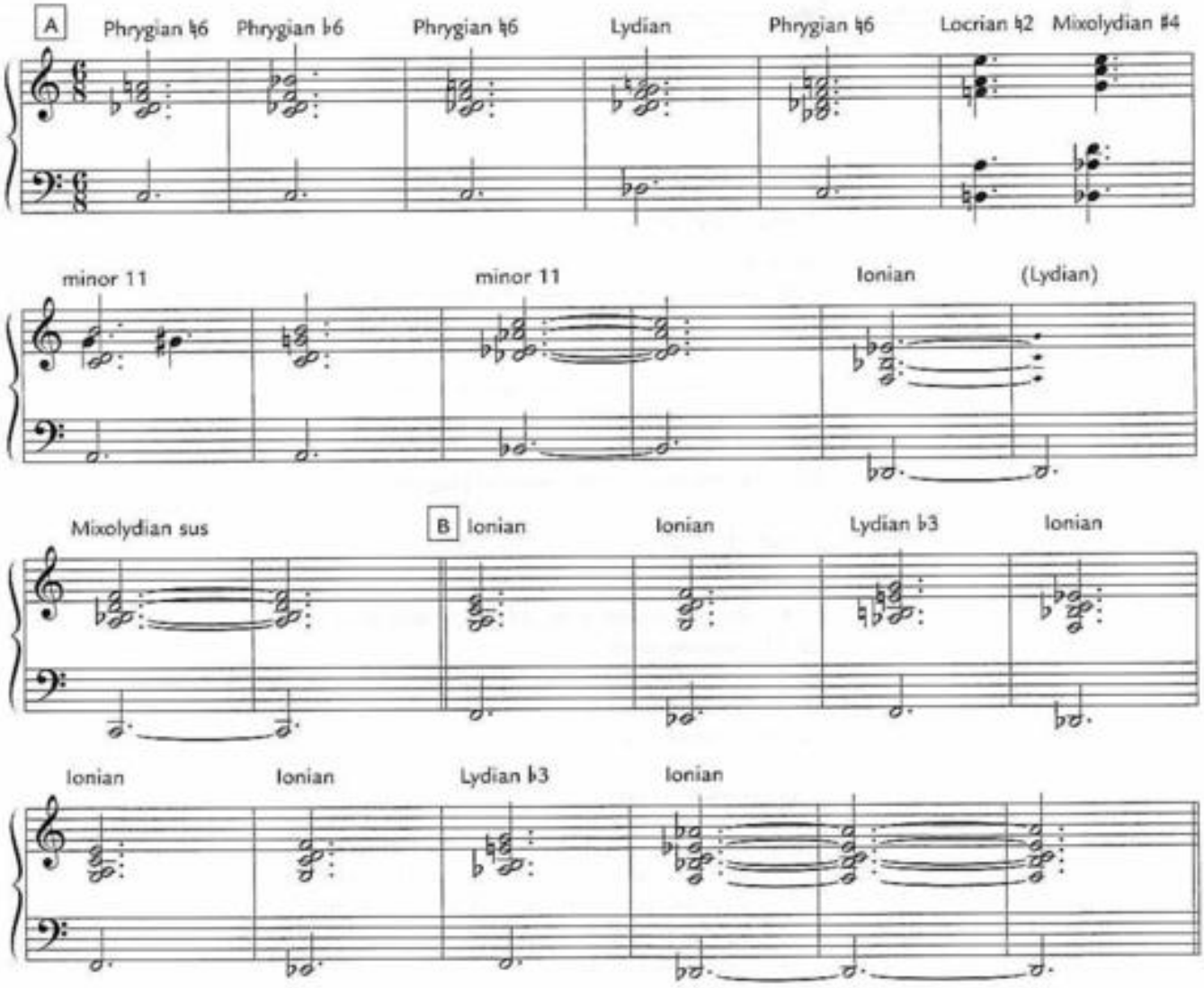
1 - 5 modes are all diatonically related to B♭ melodic minor
6 - 7 voice-led with some common inner connection
7 - 8 B♭ Mixolydian ♯4 acts as tritone substitute resolution to A minor
8 - 9 parallel movement
10 resolution to the relative major

1) from *In The Door* CDP 95738

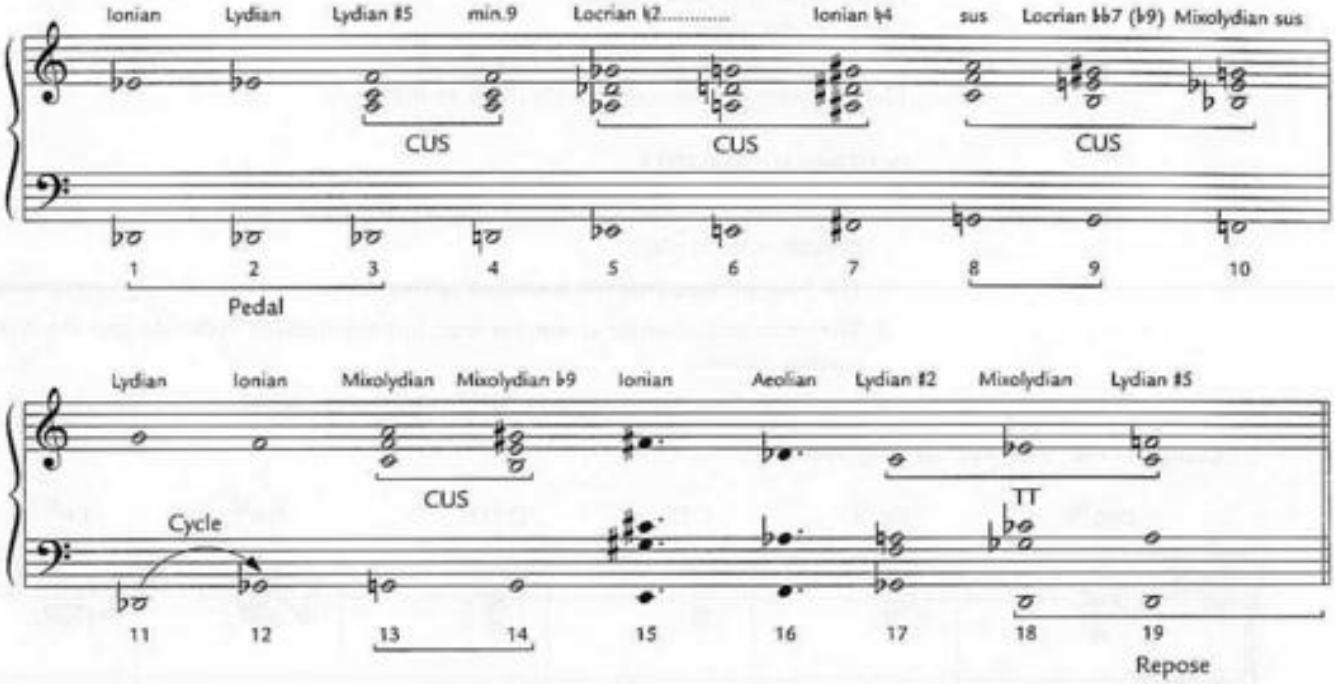
11 the dominant V chord of the next section
12- 13 parallel chords, implied plateau modal
14 parent source is harmonic major (see Chapter XV)
16- 19 repeat of 12-15
19 closest there is to a point of climax, rather subtle
20 cadence through repose, as last chord, resolves to first chord as upper neighbor and diatonic relation

D. GENERAL QUALITIES

1. There are similarities between this tune, "Ruth," "Pee Wee," and "Hello Goodbye": root relationships, emotional effect, and similar key centers. Looking them over, try to determine the common source of inspiration.
2. The emotional mapping is simple with two areas: the first, chords 1-11 a little dark and subdued because of its general modality and because of its slow harmonic rhythm with repose by pedal point and because of its having little bass melodic contour. Chords 12-28 are more active both modally and by bass melodic contour with faster harmonic rhythm.
3. Another through-composed tune, the form is symmetric with two sections: A- 14 bars and B- 10 bars.

Example 11-4: "Mikell's" by Joey Calderazzo

3. PEE WEE[1] – TONY WILLIAMS

This gentle waltz has symmetric harmonic rhythm and has a few areas of quasi-functional chord movement, which is typical of a composition that is transitional from tonal to modal chromatic.

Example 11-5:

COMMENTS

A. BASS MELODY

CHORDS:

1-3 repose area (pedal point)
4-7 chromatic, fairly slow transition area, increase of tension
8-10 repose area
11-12 transition with cycle of fifths
13-14 repose area
15-17 transition with signpost "hook," occurs at all times, including improvisation (see "Ruth" and "Teru")
18-19 last repose area
19 resolves to first chord by modal shift with pedal point

B. TOP MELODY

CHORDS:

1-2 common tone connection
3-4 common tone
5-7 chromatic melody upward
8-10 inversion of 5-7
11-13 sequence of 8-10
13-14 common tone
15-17 strong leap downward, contrary motion to bass melody, a "hook" motif, as found in many compositions
17-19 form of inversion of 15-17, a return to starting place

1) *The Sorcerer* Miles Davis Columbia CS 9532

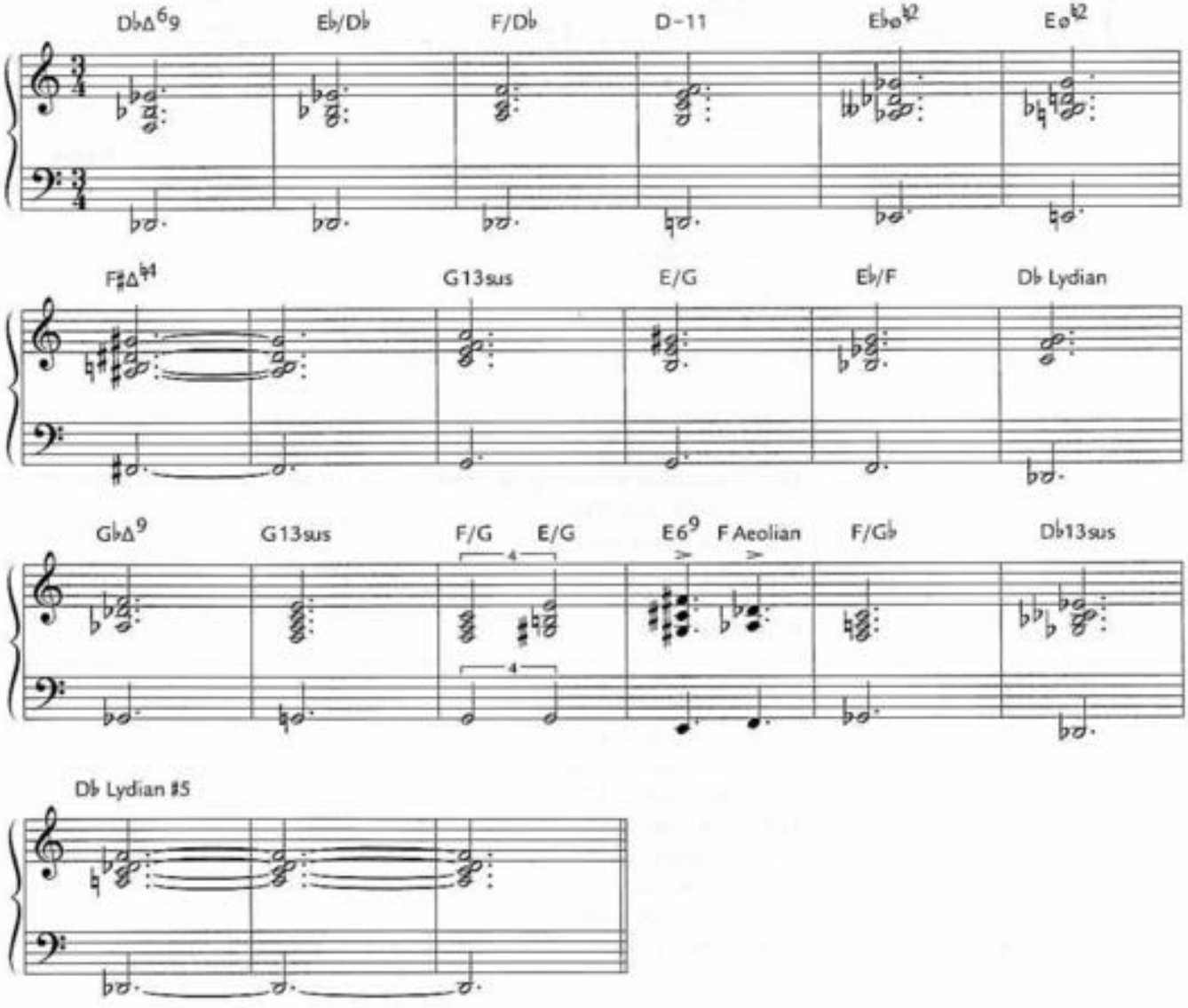
C. HARMONIC MATERIAL

CHORDS:

1-3 increase in tension
3-4 common US, bright to darker
5-7 common US
8-10 common US, cryptic cadence, (see Chapter XIII) quasi II-V (D-7 to G7♭9 to C-7)
11-12 cycle of Lydian chords
13-14 repeat of 8-9
15-16 common inner structure, point of climax
17-19 tritone related common US (F/G♭ to B/D♭)

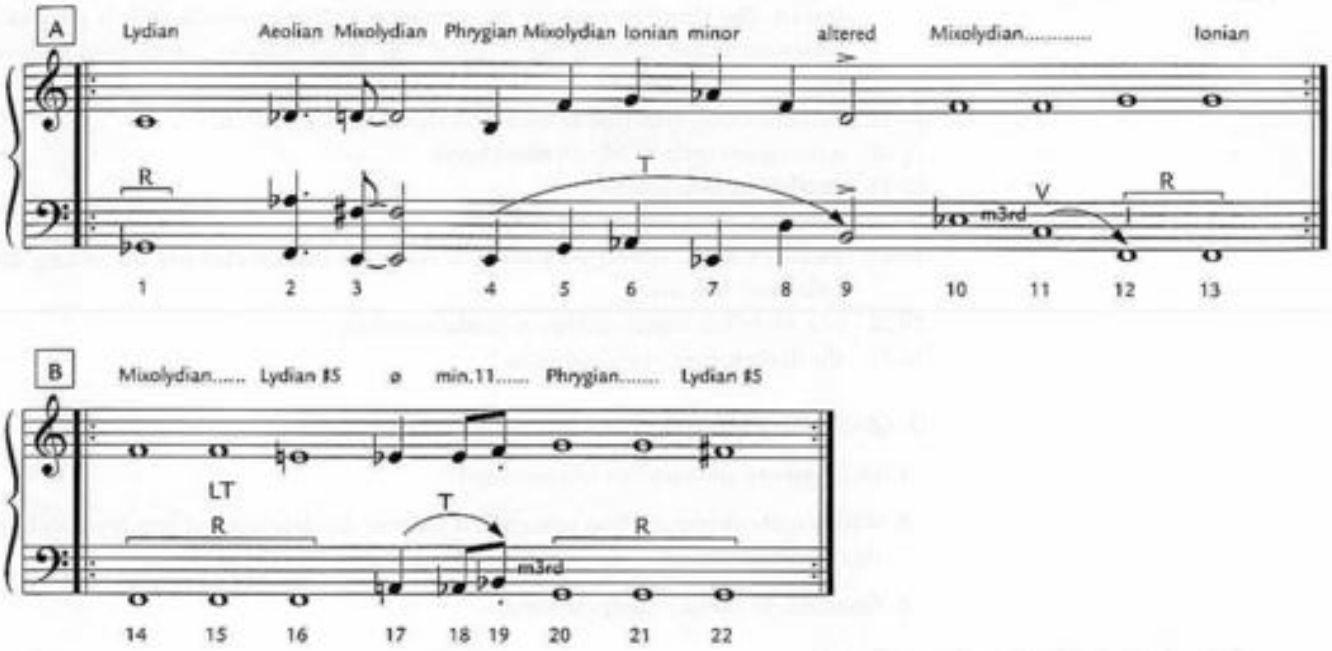
D. GENERAL QUALITIES

1. In spite of its symmetric harmonic rhythm and its ties to functional harmony, this is a difficult tune to play.
2. The 3-bar phrase at the end is unusual, giving the tune a 21-bar through-composed form.
3. The emotional contour is not extreme, but the inserted cycles do give the harmonic rhythm a boost.
4. It seems to have been composed purely by intuition, without much pre-planning.

Example 11-6: "Pee Wee" by Tony Williams

4. TERU[1] – WAYNE SHORTER

This is a very slow ballad, based on the traditional song form; it has an AABA form but the bridge has only seven bars.

Example 11-7:



COMMENTS

A. BASS MELODY

CHORDS:

1 a full bar of G♭ Lydian at the slow tempo shows repose
2-3 an important "hook" or signpost of the composition
4-9 an active transition area with an active bass melody
10-11 downward, relaxation toward the cadential repose area
12-13 pedal point bass repose area, cycles to first chord by lower neighbor tone (leading-tone effect)
14 -16 pedal point repose area
17-19 increase of tension with upward and active transition area, the staccato on chord 19 effectively sets up the release of the tension at bar 20; the downward minor third skip to chord 20 enhances the result
20-21 the final repose cadence, the last chord cycles to the first by upper neighbor tone

B. TOP MELODY

CHORDS:

1 primary color tone
2-3 contrary motion to bass is effective in increasing tension
4-9 definition tones
10-11 common tone connection
12-13 common tone connection
14-16 downward resolution of melody clarifies modal cadence
17- 9 color tones
20-22 sequence of 14-16

1) *Adam's Apple* Wayne Shorter
Blue Note BLP 4232

C. HARMONIC MATERIAL

CHORDS:

1 bright but tense

2-3 a form of II-V cadence, derived from a voice-leading method

4-9 a good example of modal contour and II-V cadential parody, the Phrygian to Mixolydian (4-5) is a diatonically related cadence, with the acoustic source being C Ionian. The Phrygian could be thought of as D Dorian over E, so it is a typical II-V with substituted root for the II chord. The Mixolydian to Ionian (5-6) follows the normal modal contour of a diatonic cadence but with free-form roots

10-12 parallel Mixolydian chords moving a minor third is typical

11-12 a dominant cycle of Mixolydian chords

12-13 another parody cadence

14-16 modal contour, parody cadence V-I

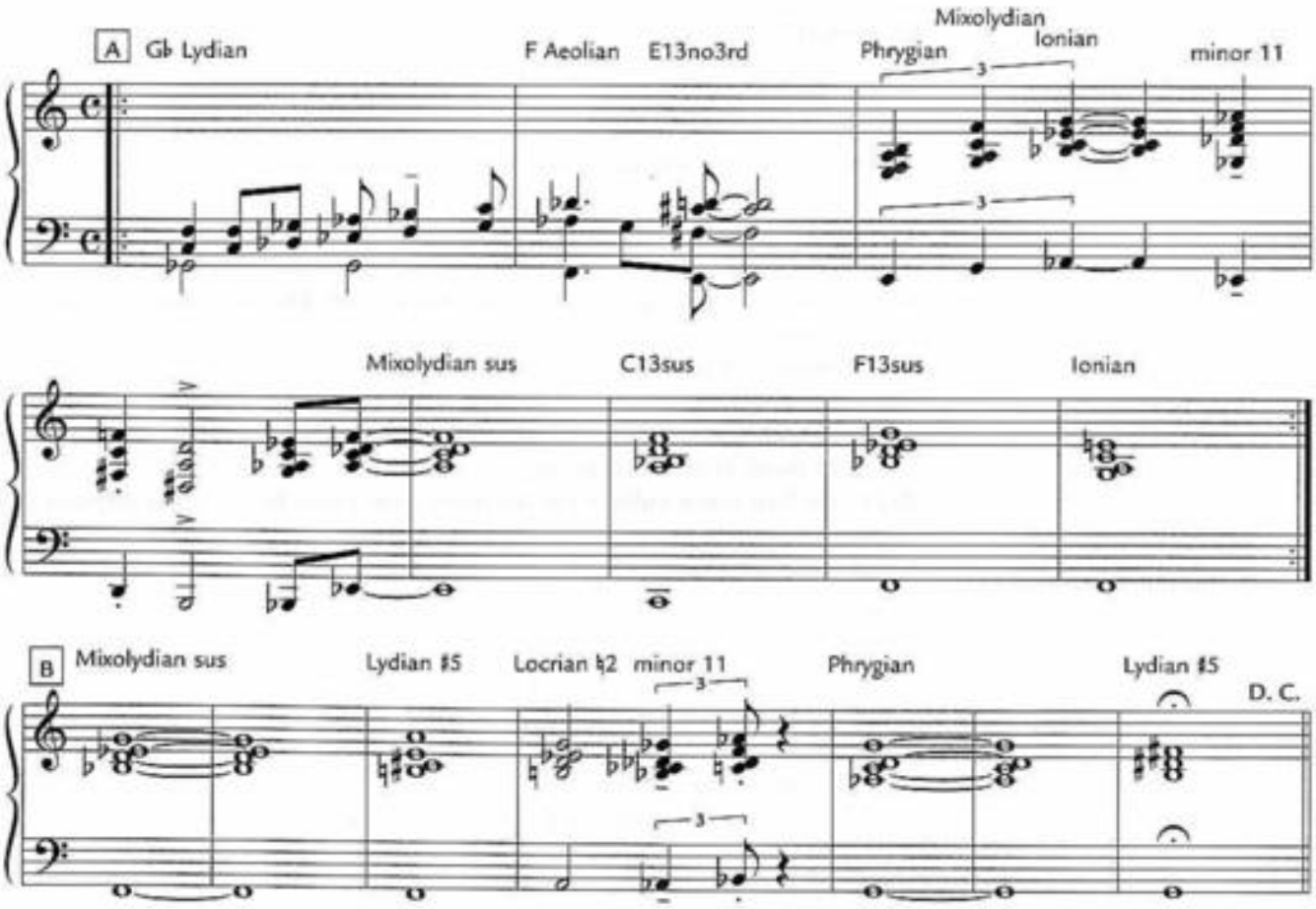
17-19 parallel chords, closest we have to a climax at bar 19, effective for setting up the following dark area

20-22 like 14-16 but more extreme in modal resolution

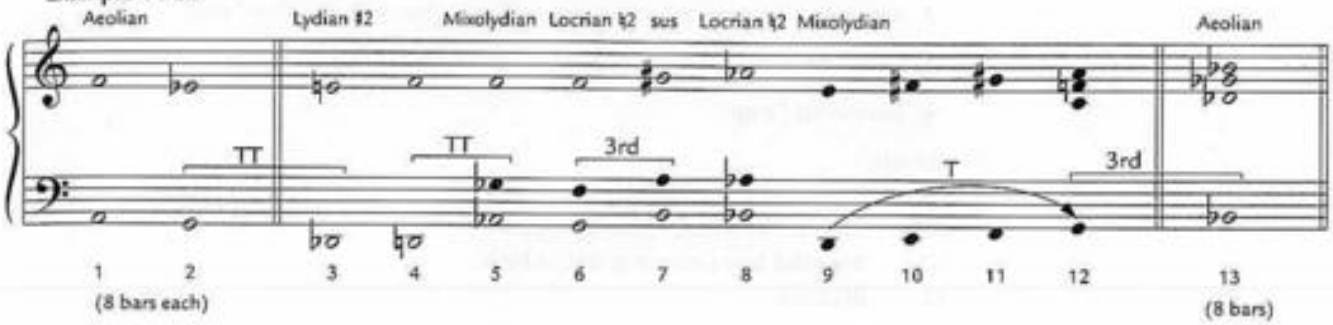
20-21 the darkest part of composition

D. GENERAL QUALITIES

1. Good variety and contrast of the modes.
2. With a quite chromatic bass melody and short or no clear areas of emotional definition, this is vertical modal.
3. Good use of "hook," signpost areas.

Example 11-8: "Teru" by Wayne Shorter

5. THE LIEB[1] – RON MILLER, 1984

This composition, written for saxophonist/composer David Liebman, is representative of the plateau modal category with a vertical modal bridge. The emphasized modality is Aeolian, with a medium tempo; the overall mood is dark romanticism. This tune could be described as American ECM.

Example 11-9:

COMMENTS

This being a plateau modal composition, the only significant harmonic movement is in the bridge, which is vertical modal.

A. BASS MELODY

CHORD:

1-2 two plateaus of Aeolian, a whole tone apart, the downward change creates more darkness, a tritone skip down to next chord creates tension
4-5 tritone skip, inversion of 2-3
3-8 a general upward trend, preparing to set up a point of climax
7-8 sequence of 5-6
9-12 a definite transition area, the movement is faster, upward, following a Dorian tetrachord
12-13 the normal resolution here is for the melody to resolve up a semitone, the skip is unexpected

B. TOP MELODY

CHORD:

1-2 primary color tones
3-4 same
4-6 common tone
7-8 common tone
9-12 upward movement, Ionian tetachord, setting up climax
13 highest point in the harmonic melody, dramatic

C. HARMONIC MATERIAL

CHORD:

1-2 plateau Aeolian, dark, soft
3-4 strong contrast, bright, tense, hard
4-6 Db/D to Gb/Ab, cryptical cadence Db to Gb V-I US, chords 5 and 6, common US except for one note of voice-leading: Gb to F
7-8 sequence of 5-6, up a minor third, overall positive resolution
9-12 fast moving chords, all sus, positive, sets up climax
12 point of climax

1) *The Music of Ron Miller* CCP/Belwin SB266

12-13 a kind of cryptic cadence (see chapter on slash chords), with a lower neighbor resolution with the upper structure and a minor third up in the bass, a kind of sequence of 5-6

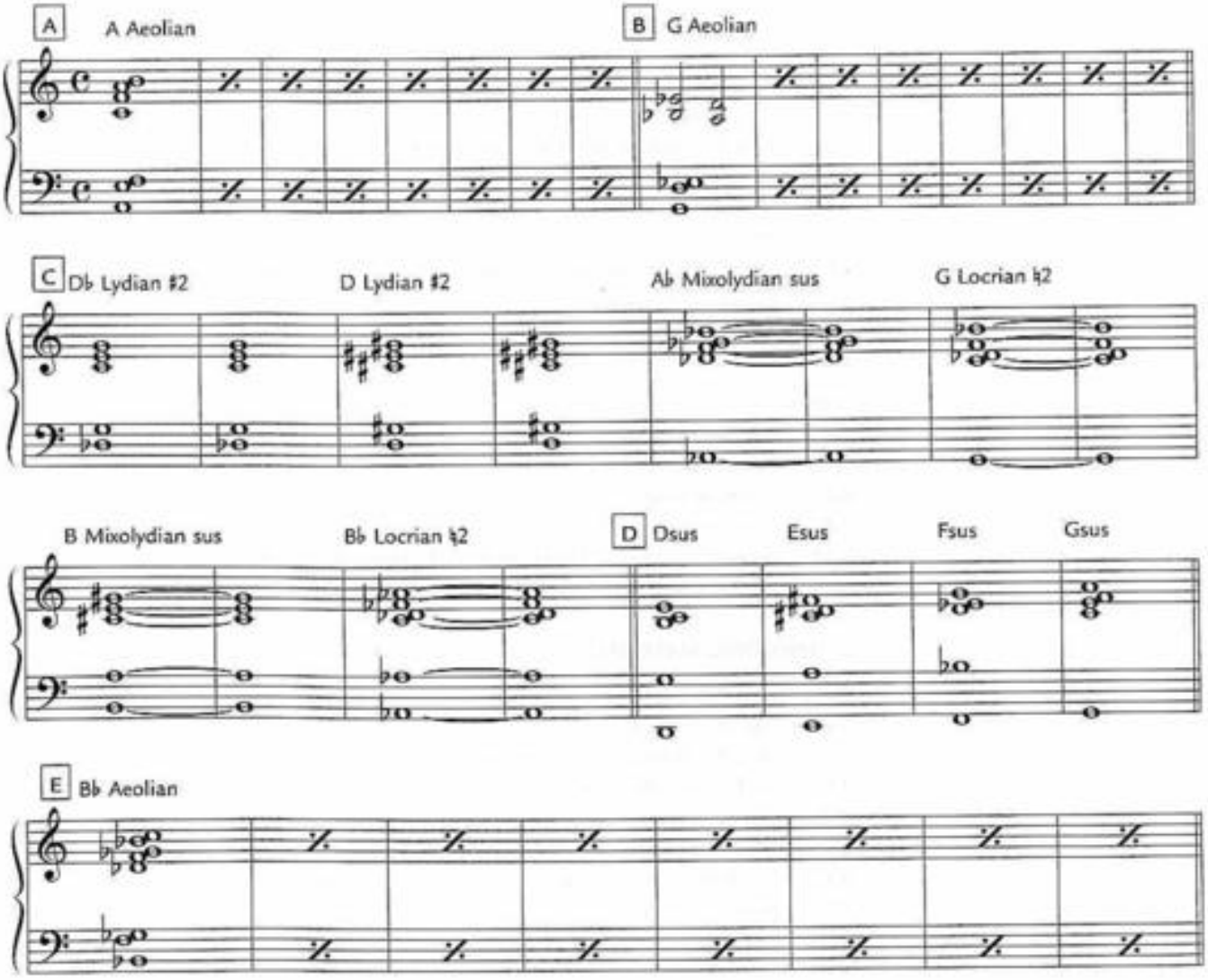
D. GENERAL QUALITIES

1. Dark, ECMish feel, New York on a drizzle filled autumn day
2. As is all plateau modal tunes, rather simple, but nice to "blow" over
3. Fairly symmetric in form, 8, 8, 16, 8, sectional through-composed
4. Emotional "map"

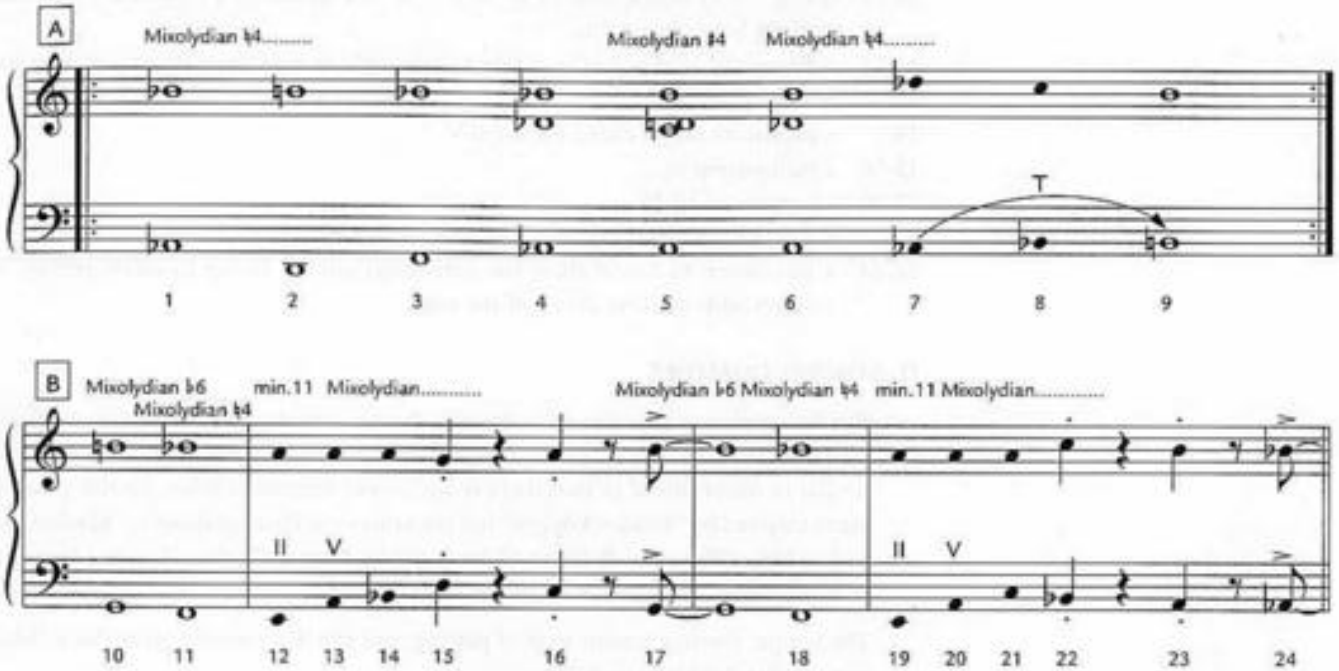
CHORD:

1-2 darkly "hip" to darker
3-5 slightly "wrinkled," getting hopeful
5-12 doubtful love becoming full of hope
13 dramatic

5. The modulation, change of key from the opening A Aeolian to the ending B♭ Aeolian, contributes to the overall dramatic effect of this tune and was a strong factor in the plan of attack when composing it.

Example 11-10: "The Lieb" by Ron Miller

6. JC ON THE LAND – RON MILLER

This is a plateau modal composition written for saxophonist/author/jazz educator Jerry Coker. Its overall modal quality being Mixolydian, it is one of the many plateau modal compositions that can be compared to Herbie Hancock's "Maiden Voyage." This is only in the overall emotional quality associated with the Mixolydian mode as the following will show.

Example 11-11:

COMMENTS

A. BASS MELODY

CHORDS:

1-4 outline of a diminished triad, or a skip down a tritone, cycling back to the starting note by minor thirds
4-6 common tone bass
7-9 passing tones to the cadential B root, notice that the entire bass melody of the A section could be derived from the diminished scale
10-12 relaxed, downward contour, setting up an active area
12-14 a II-V cycle,12-13 to a substitute I chord (parody cadence)
15-16 is a signpost "hook"
21 referring to 13-14, the resolution to the C is dramatic and sets up the turnaround to resolve to A♭
22-24 derived from 15-17, this is set up to resolve to the first chord of the tune

B. TOP MELODY

CHORDS:

1-6 derived from color tones or voice-leading
7-9 contrary motion to bass melody, enhances cadential quality
10-12 chromatic down, 10-11 a form of voice-leading
12-14 voice-leading a II-V to parody V-I
15-17 contrary motion
17-20 same as 10-13
22-24 setting up first chord of the composition

C. HARMONIC MATERIAL

CHORDS:

1-4 parallel Mixolydian chords, 4 bars each, this is plateau modal

4-6 the common use of Mixolydian ♭4 to Mixolydian ♯4 to Mixolydian ♮4, it creates a positive emotional effect due to the brightening of the fourth

7-9 a minor third up is a very positive and typical resolution of Mixolydian sus chords (remember "Maiden Voyage"?)

10-11 taking the G Mixolydian ♭6 to be a C-Δ over G, this is a cryptic II-V cadence, the cadence being C- to Fsus

12-13 a diatonic II-V, this part is in fact a swing style section showing a tie to a traditional hard bop aesthetic

14 a substitute target chord for the II-V

15-16 a turnaround to...

17-20 ...a repeat of 10-13

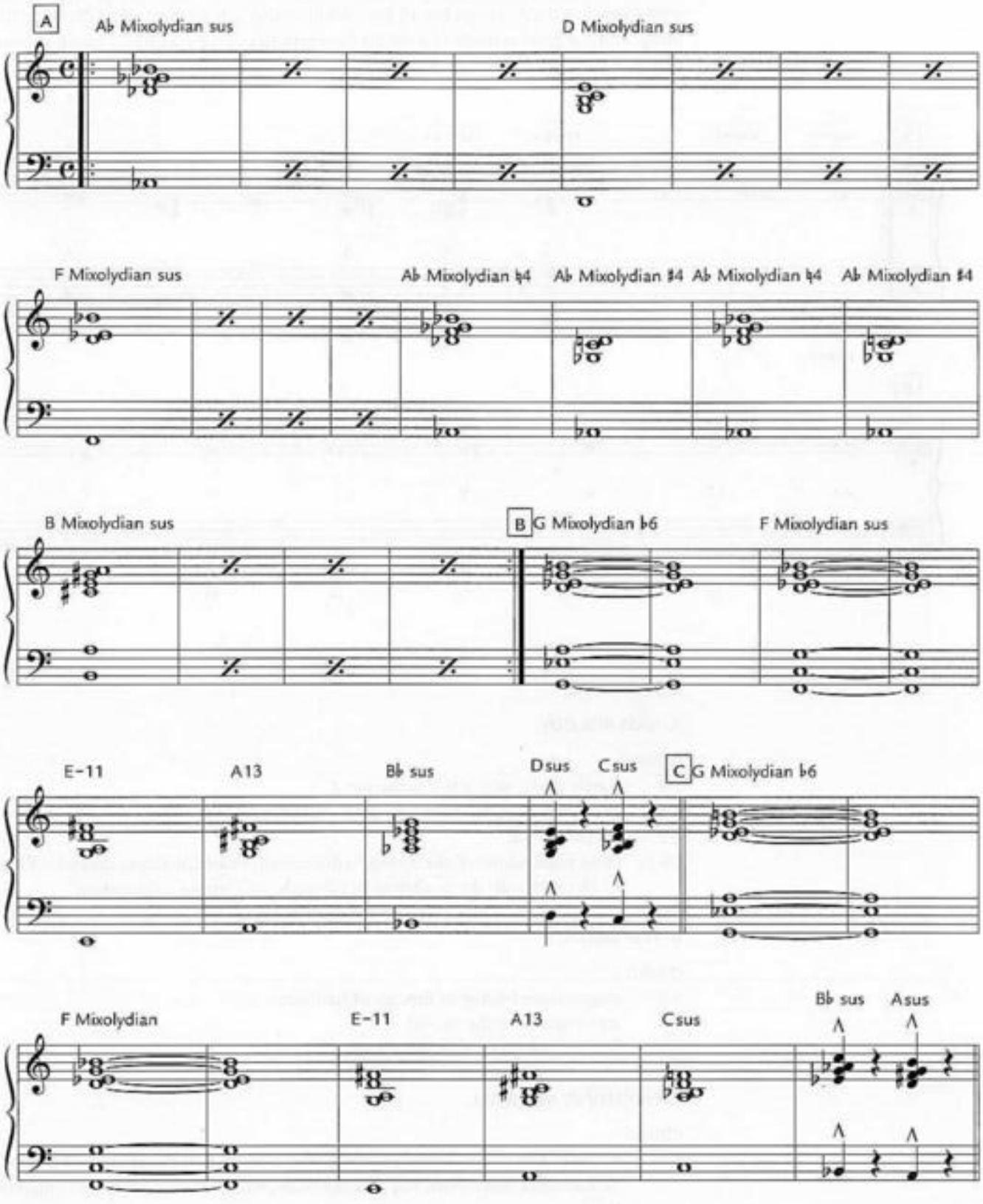
21 a higher tonal center of chord 14, creates drama

22-24 a turn down to top of tune, the note durations are set up to create tension which resolves with the first chord of the tune

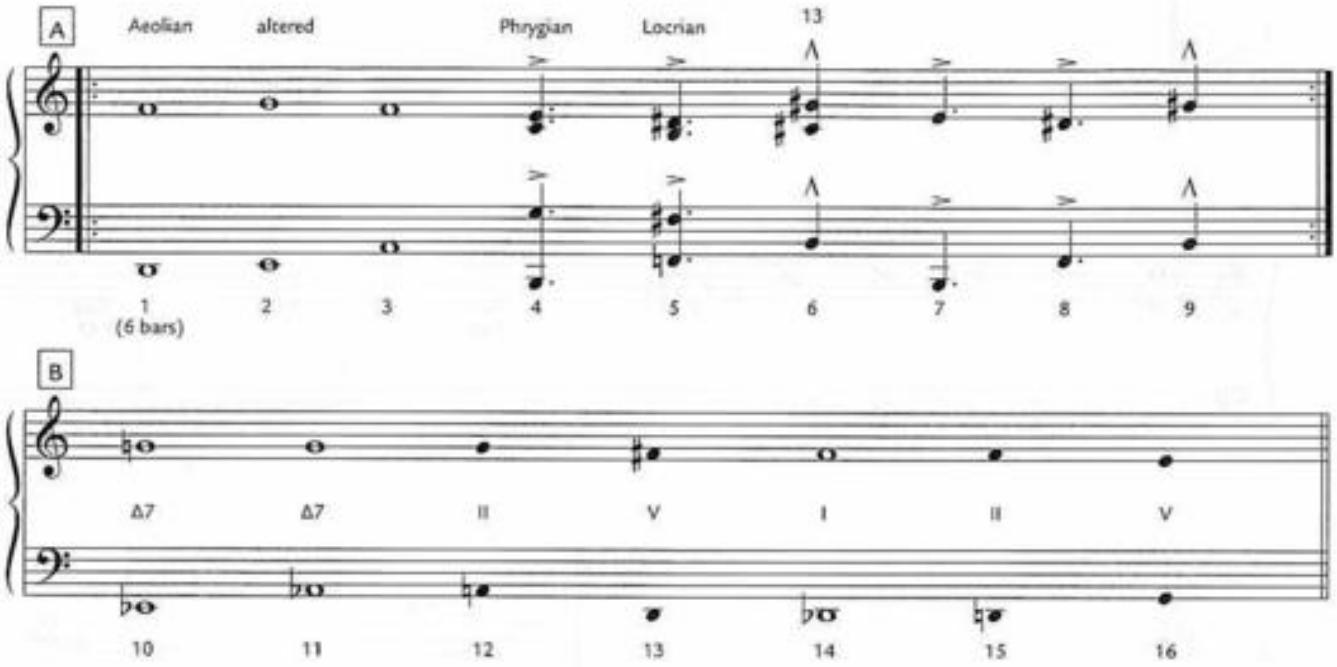
D. GENERAL QUALITIES

1. Having symmetric plateaus of essentially the same mode, this is an example of plateau modal, same mode. In addition, because each plateau has the same mode, the tune is similar to linear modal in that there is one overall emotional effect. So this tune, like so many inspired by "Maiden Voyage," has the same emotional qualities as "Maiden Voyage" with subtle differences. Refer to "Why Wait" by Stanley Clarke, "Twelve More Bars" by Wayne Shorter, and "Follow Your Heart" by John McLaughlin.

2. The tempo, rhythm section style of playing, and the II-V sections make this a "blowing" tune, in the hard bop tradition.

Example 11-12: "JC On The Land" by Ron Miller

7. PUMPKIN[1] – ANDREW HILL

This very hip and dark composition almost falls in the linear modal category. It is basically song form, but the A section has 10 bars. Additionally, it has a functional harmony (II-V-I) bridge and is a great example of a modal tune with ties to the traditional bebop aesthetic.

Example 11-13:

COMMENTS

A. BASS MELODY

CHORD:

1-3 simply a root with a II-V turnaround
4-6 a tritone figure, the signpost "hook" of this tune
7-9 a repeat of 4-6
10-16 being tonal harmony, the melody is diatonically related, defining the cycle of keys: E♭ to A♭ to D♭ with the resolution to D♭ made with tritone substitution

B. TOP MELODY

CHORD:

1-3 correct voice-leading of functional harmony
4-9 active motive of the "hook"
10-16 again, voice-led functional harmony

C. HARMONIC MATERIAL

CHORD:

1 6 bars of D Aeolian, clearly perceived, this is linear modal, the emotional quality of Aeolian: dark and melancholy, is additionally tense due to the very fast tempo of this tune
2-3 a turnaround cycle
4-9 common upper structures

1) *Black Fire* Blue Note BST-84151

10-11 cycle of Ionian chords
12-13 tritone substituted II-V to D♭ (sub for E♭- to A♭13)
14 completed cycle of the key centers: E♭ to A♭ to D♭
15-16 a "stand alone" II-V, resolved melodically, not functionally

D. GENERAL QUALITIES

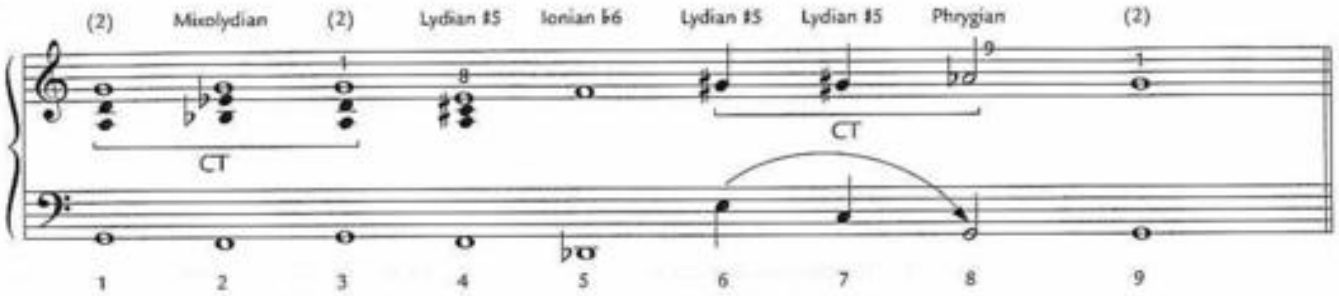
1. Because of general modality, tempo, and rhythm section style of accompaniment, this is a very sophisticated composition while still being fairly simple in construction. This tune could be described by purists as the "real thing." Referring to the "Tree Of Composers" in the appendix, you can see that Andrew Hill is influenced by Monk. This tune is evidence of that.
2. Because of its ties to traditional bebop, this is a good "player's tune," but it is very difficult to play.
3. The emotional map is simple with three parts, the dark Aeolian section, the quirky "hook" vamp and the energetic exuberance of the II-V section.

Example 11-14: "Pumpkin" by Andrew Hill

8. TOUCHSTONE[1] – RALPH TOWNER

This is another short, compact, gem of a composition by one of the contemporary "master" composers. It starts out as plateau modal and compresses the harmonic rhythm to become vertical.

Example 11-15:



COMMENTS

A. BASS MELODY

CHORDS:

1-2 a short 2-note motif, downward
3-4 a sequence of 1-2
4-5 a relaxed resolution down a major third
6-7 outline of a C major triad, increase of tension with the skips
8-9 pedal point, clear modal contrast and resolution

B. TOP MELODY

CHORDS:

1-3 common tone connection
4 - 6 general upward trend to increase tension
6-8 common tones
8-9 a step downward for cadence

C. HARMONIC MATERIAL

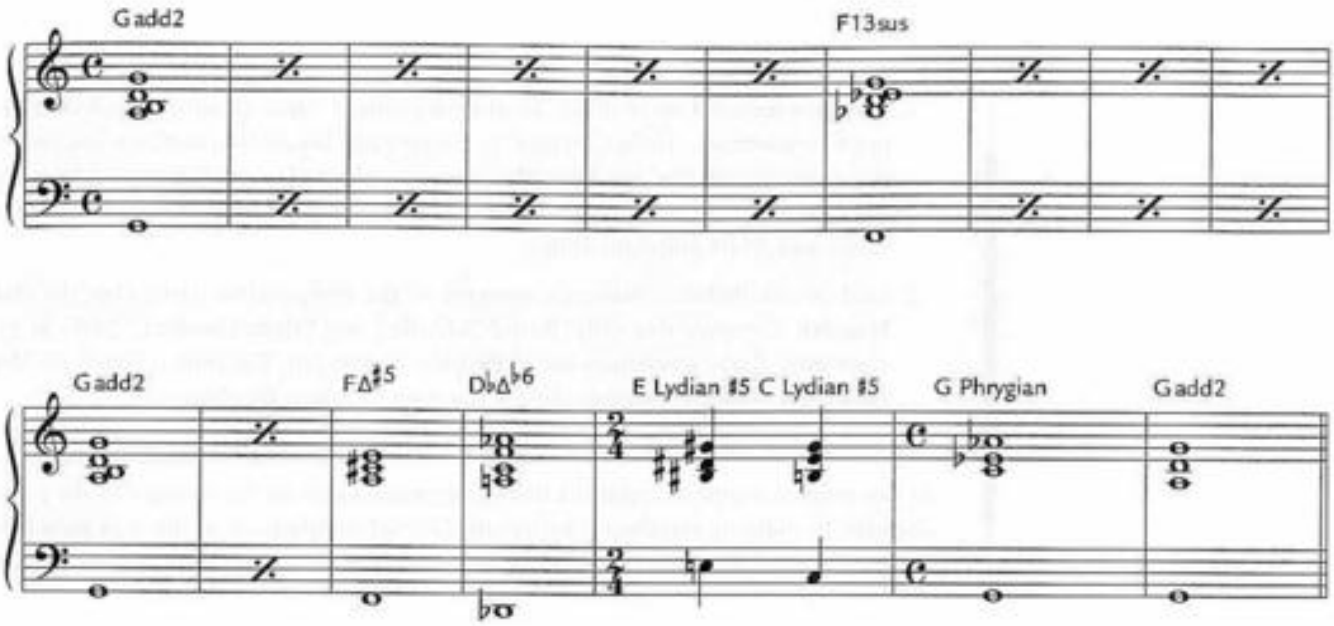
CHORDS:

1 - 3 common inner structures
3-4 abrupt increase in tension (index # 1 to # 8)
5 use of exotic chord, Ionian ♭6, harmonic major (see Chapter XV)
6-8 good example of tension index contour, the increase in tension setting up the final cadence
8-9 cryptic cadence, upper structure resolving down, index # 9 to # 1

D. GENERAL COMMENTS

1. The overall tension contour is derived from an increasing compression of the harmonic rhythm.
2. Good combination of tense, stark modes and clear open nonmodal chords. It sounds like it was composed on the guitar.

1) Oregon, *Music of Another Present Era*, Vanguard VSD 79326

Example 11-16: "Touchstone" by Ralph Towner

HARMONIC CONTOUR – CONCLUSION

One of the best methods for learning composition is to transcribe compositions with harmonic material "above" one's level of abilities. It is difficult because it requires going that "extra mile," but the gains are well worth the pain. A very beneficial project would be to transcribe a section of a Stravinsky piece or a section of a Gil Evans arrangement. Of lesser difficulty, but of great benefit, is to analyze a number of better compositions, those compositions that have that special quality that attracts a listener and becomes a classic, which is what has been done in the last few previous pages. When creating your own compositions, try to organize the harmonic materials with the following:

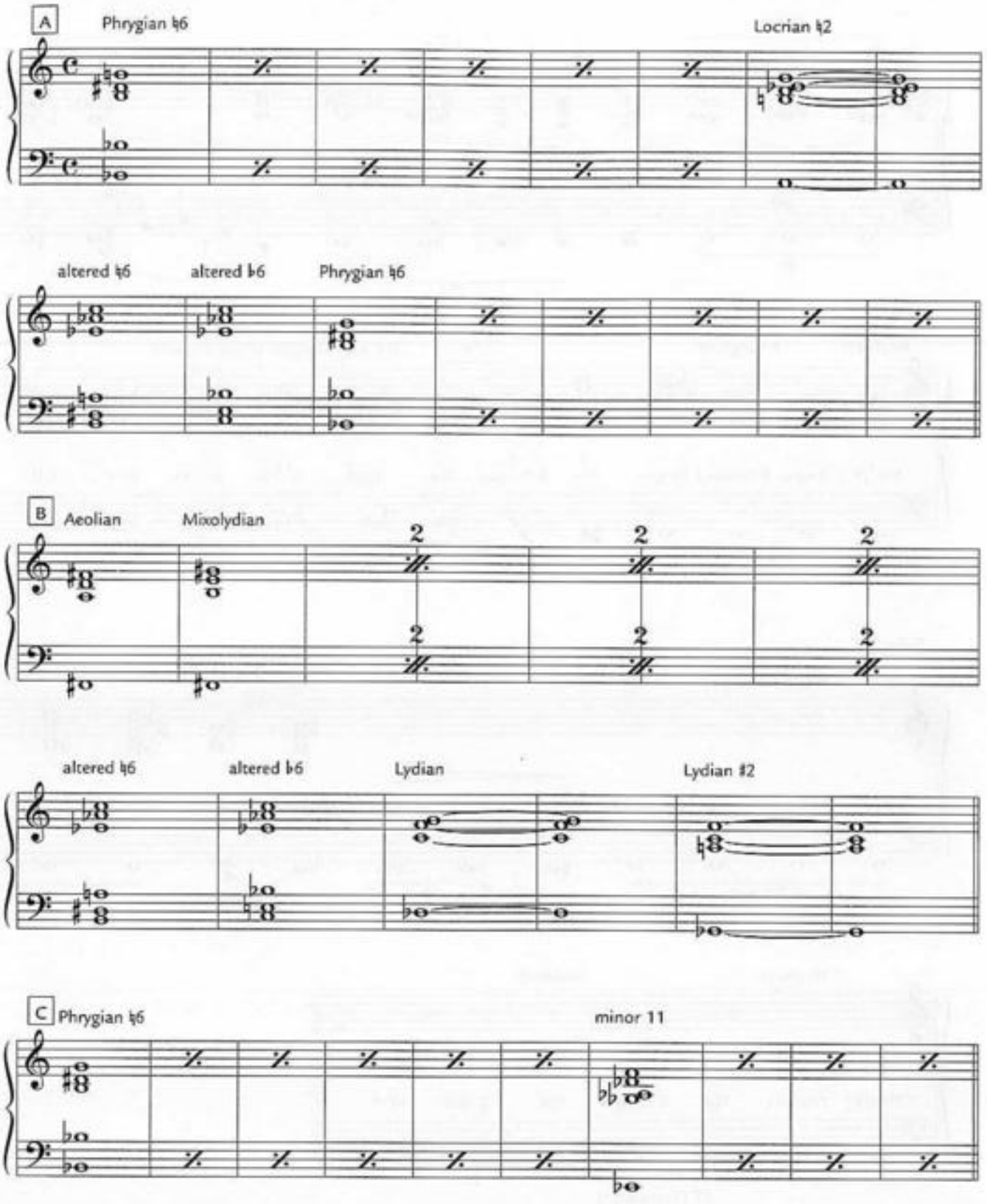
1. Through-composed, with symmetric sections, but not necessarily even numbered bars.
2. Modal chord movement that is easily voice-led.
3. A chordal or melodic figure that offers a signpost, or "hook" for the listener and improvisor.
4. A clear point of climax, note any similarities of climax location in the previous examples.
5. A rounded harmonic form – last chord resolves to the first chord.
6. Keep the harmonic material simple enough for others to play or your tunes will not be played without coercion.
7. Have a clear emotional or programmatic "goal" in mind when creating your composition.

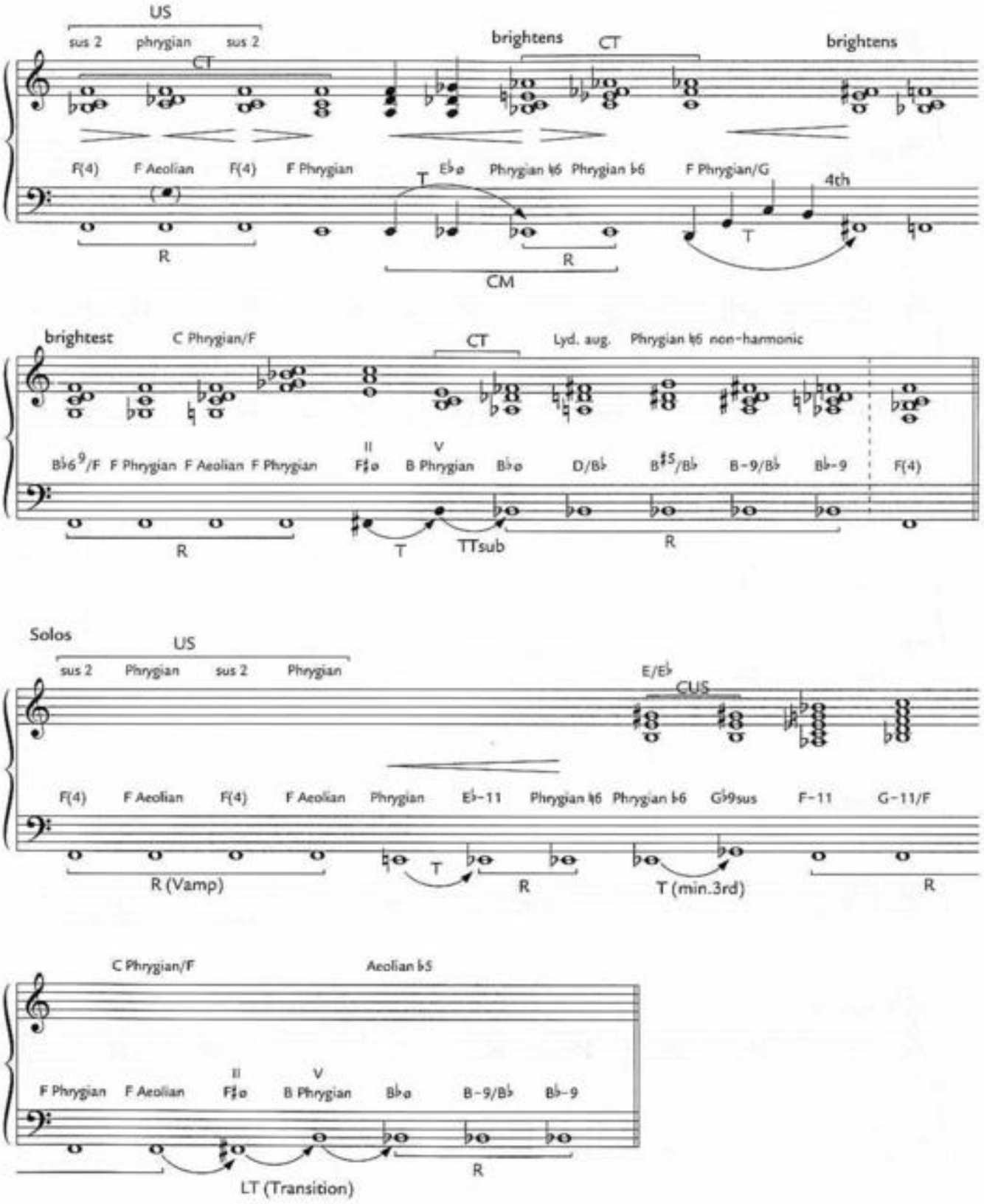
Review the previous compositions with the above in mind, ask if, in fact, the compositions satisfied the proposed guidelines.

SUGGESTED EXERCISES

1. Using the included set of chords for the composition "Hello Goodbye," analyze as in the previous examples. "Hello Goodbye" is composed by bassist Ron McClure and found on the recording *The Sun and Moon Have Come Together,* (Harvest SKAO-423) by a group called The Fourth Way, with Mike Nock, piano; Ron McClure, bass; Michael White, violin; and Eddie Marshall, drums.
2. Look at the included harmonic synopsis of the composition "Little One" by Herbie Hancock. Compare this with "Ruth," "Mikell's," and "Hello Goodbye." Make as many comments about similarities and differences as you can. The tune is found on Herbie Hancock's *Maiden Voyage* recording if you want to hear it for reference.
3. Analyze any composition of your choice, one that you find really inspirational.

At this point it is time to create the first composition based on the concepts of the previous chapters. In addition, you should analyze the finished composition, as this is of great benefit in pointing out both strengths and weaknesses as well as helping to clarify a developing style.

Example 11-17: "Hello Goodbye" by Ron McClure

Example 11-18: "Little One" by Herbie Hancock



CHAPTER XII

The Modes and Chords of Altered Diatonic No. 2 (Harmonic Minor)

Using the tetrachord method of construction, the remaining three tetrachords are used in the construction process: harmonic, Hungarian major, and Hungarian minor.

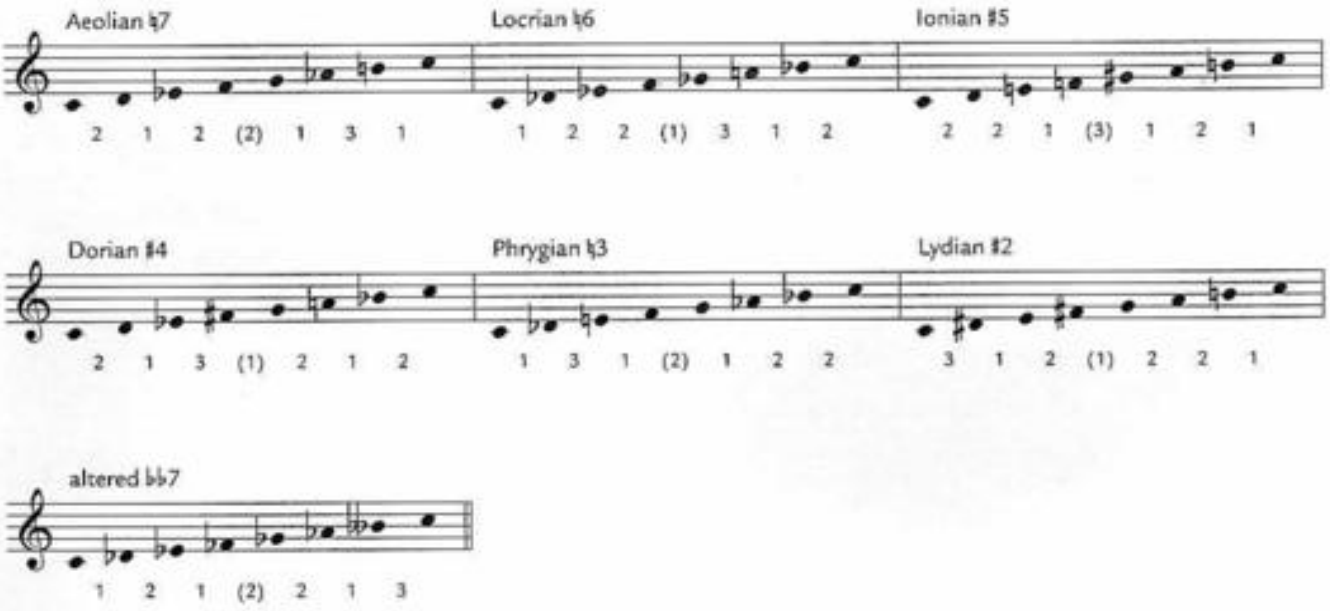
THE TETRACHORD FORMULAS

MODE	TETRACHORDS	SEMITONES	CONNECTOR
Aeolian ♮7	Dorian & Harmonic Minor	212 & 131	2
Locrian ♮6	Phrygian & Hungarian Major	122 & 312	1
Ionian ♯5	Ionian & Spanish	221 & 121	3
Dorian ♯4	Hungarian Minor & Ionian	213 & 212	1
Phrygian ♮3	Harmonic & Phrygian	131 & 122	2
Lydian ♯2	Hungarian Major & Ionian	312 & 221	1
Altered ♭♭7	Spanish & Hungarian Minor	121 & 213	2

Because of the amount of alteration, the order of darkness is not obvious by looking at the tetrachord formulas. The best process is to compare each mode to its immediate predecessor and determine its quality by the alteration. As an example, Aeolian ♮7, having the seventh sharped, would be brighter than Aeolian. In addition, the number and placement of tritones in the mode will affect its stability. Notice that Aeolian ♮7 has two tritones: D to A♭ and F to B. This would make it more active than unaltered Aeolian.

To restate: Learn to hear these modes and their chords as a form of altered Ionian (Ionian ♯5 or Ionian ♭3, ♭6).

Example 12-1: The Modes of the Altered Diatonic No. 2 – Harmonic Minor (Ionian ♭3, ♭6)



CONSTRUCTION OF THE CHORDS OF HARMONIC MINOR

(Altered Diatonic No. 2, Ionian ♯5, Ionian ♭3, ♭6, Harmonic Minor)

These are mixed spacings which include use of the grip method of chord construction.The following table of color tones is derived again, by camparison with the parent Ionian mode.

THE TABLE

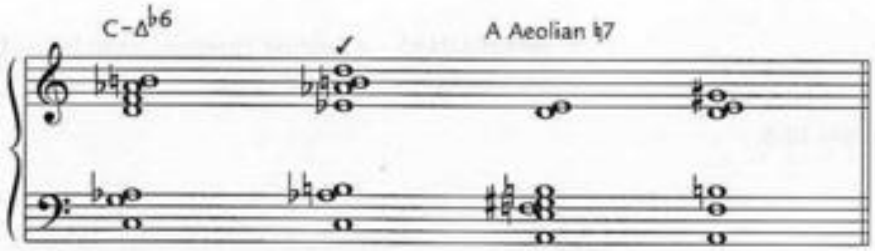
Aeolian ♮7	♭6	♮7	2	♭3	5	4
Locrian ♮6	♭5	6	♭2	♭7	♭3	4
Ionian ♯5	♮4	♯5	♮7	3	9	6
Dorian ♯4	♮6	♯4	♭3	9	♭7	5
Phrygian ♮3	♭2	♮3	5	♭7	♭6	4
Lydian ♯2	♯4	♯2	♮7	3	6	9
Altered ♭♭7	♭4	♭♭7	♭2	♭5	♭6	♭3

At least the first three of the tones are needed to define the mode. The order of the last three is not strict.

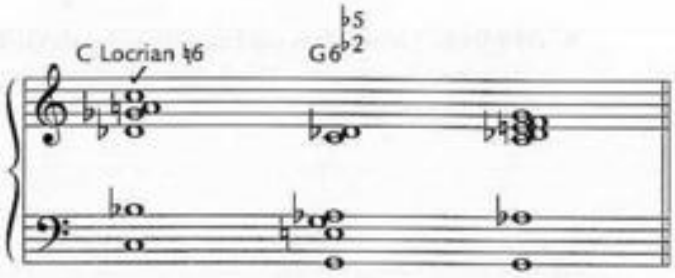
CHORD EXAMPLES

1. AEOLIAN ♮7 – A brighter form of Aeolian, but less stable. One of the most used of this group.

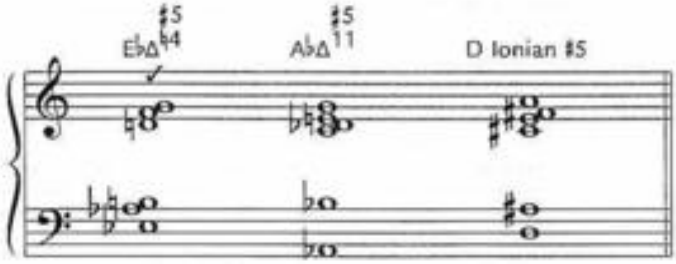
Example 12-2:



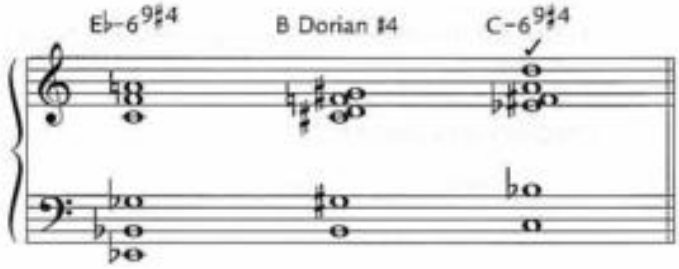
2. LOCRIAN ♮6 – Brighter than Locrian ♭6, not seen too much, it could be used as a substitute for auxiliary diminished.

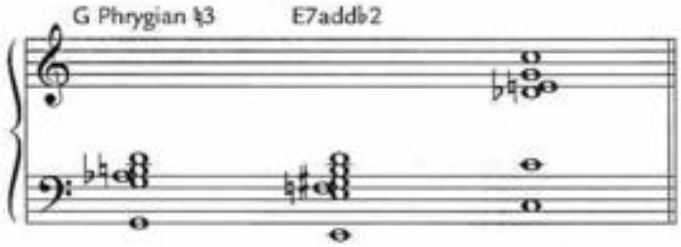
Example 12-3:

3. IONIAN ♯5 – Tends to sound like Lydian-augmented ♮4, so it is a softer sounding Lydian-augmented or a less stable Ionian ♮4. It can be used as a substitute for a Lydian-augmented chord in more romantic compositions.

Example 12-4:

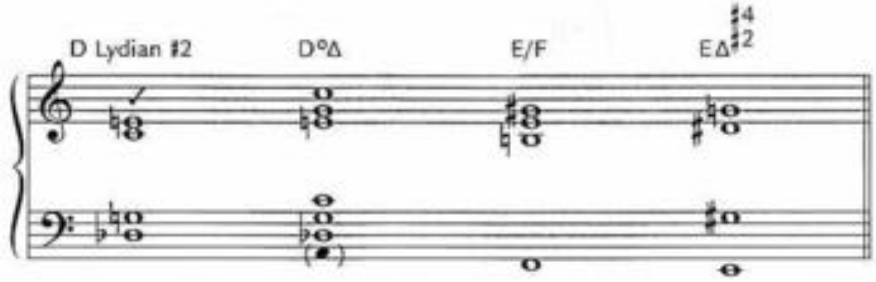


4. DORIAN ♯4 – A brighter form of Dorian, it had use in pre-modal compositions. The first chord is found in the Horace Silver tune "Sweet Sweety Dee" from *Silver's Serenade*.

Example 12-5:

5. PHRYGIAN ♮3 – A brighter Phrygian, it can be used with the auxiliary diminished scale. Occasionally used on club dates.

Example 12-6:

6. LYDIAN ♯2 – Most often used as a slash chord (VII/I). Note the optional substitution for a dimished scale over a Mixolydian ♯9 chord (chord 2). This chord is also known as diminished major 7.

Example 12-7:



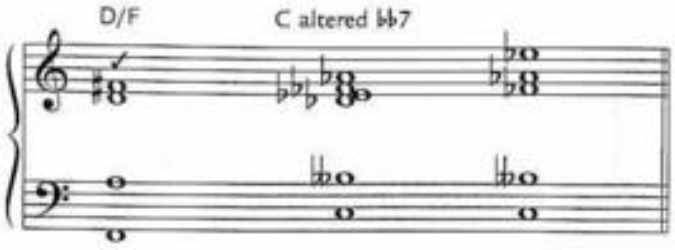
SUGGESTED EXERCISES

1. Construct a number of chords with all spacings; include a number of grip method constructions.

2. Play all the chords with an ear training goal in mind and try to identify their use on recordings.

7. ALTERED ♭♭7 – Its best use is as a slash chord (VI/I). It also is closely related to the Mixolydian ♭9 chord and can be used that way.

Example 12-8:



This group of chords is the first of the groups of esoteric modes and chords. Harmonic major and melodic minor ♯5 are the last two. The theorist experimentalist among you might want to work with the modes/chords of Ionian ♯2 as well. Although the modes of harmonic minor have been used in improvisation the chords are not found that often in compositional use. The chords of harmonic major and melodic minor ♯5 (Ionian ♭3,♯3) are used by only the most adventuresome of today's composers. David Liebman, Richie Beirach, Ralph Towner, Keith Jarrett, and Joey Calderazzo occasionally use these chords. Check out their recordings.

The emotional description of these modes can be determined in the same way as with all the altered modes: that of taking the descriptions of the parent unaltered modes and considering the alteration as an enhancement. As an example, Phrygian ♮3 is brighter than Phrygian ♭6, both brighter than Phrygian ♭6. The brighter the alteration, the higher the degree of tension. Phrygian ♭6 is considered dark and mysterious, Phrygian ♮3 is not as mysterious due to its more "open," bright quality, but is still exotic. Since there are multiple alterations in the last three sets of chords, clear categorization is not so easy. It is best to group the chords by ear.

Before we construct the modes and chords of the remaining two groups we will look at one more harmonic connection/composition technique: slash chord harmony.

CHAPTER XIII

Slash Chord Harmony

WORDS OR CONCEPTS TO KNOW:

1. Slash Chords
2. Polychords
3. Cryptic Cadence
4. Symmetric Patterns
5. Tension Contour

Slash chord harmony refers to the harmonic style in which the chordal relationships and overall development can be applied separately to the upper structure and bass parts of a group of chords. A slash chord is a two-part chord made up of an upper structure over a bass note. The "slash" in the name refers to the standard chord symbol for this kind of construction: a letter representing the upper chord's tonality and a letter representing a single bass pitch, separated by the slash character.

EXAMPLE: E/C, A7/F, Db/C, etc.

Slash chords differ from polychords in that polychords are two- or three-part chords in which each part can be a whole chord. The notation for a polychord is a letter separated by a horizontal line.

EXAMPLE: $\frac{D}{C7}$ $\frac{D-9}{C\Delta}$ $\frac{G-}{\frac{A\flat}{F-}}$

It is the slash chord that is used most often in modal harmony and, in addition, it is the major triad that is its upper structure. The emphasis of this chapter is on slash chord usage with triadic US.

CHORD CONSTRUCTION

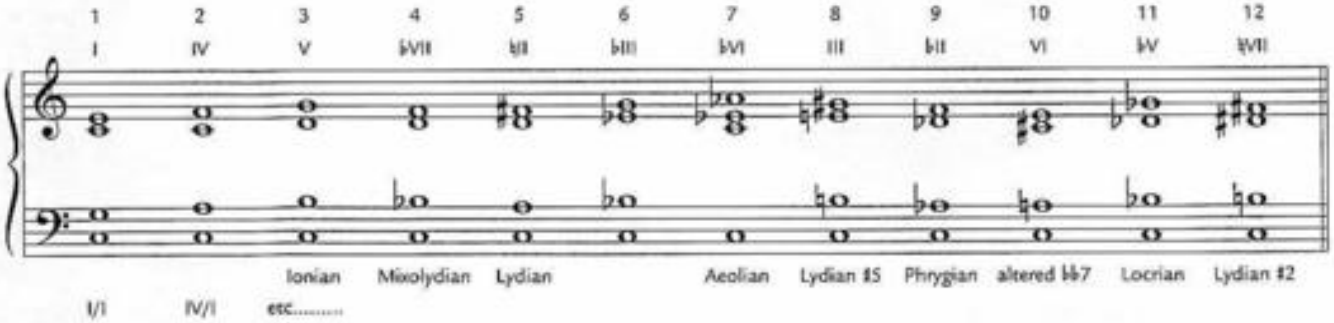
The construction of slash chords follows the same process as found in the chapter on the grip method. If you refer to that chapter you will find that the basic major triad in first inversion is one of the listed grips. An entry level grip, the triad as upper structure has predominant use in the harmony of pop and pop-jazz compositions. The sonority of a consonant triad over a root is stark and sometimes creates missing note, non-modal chords, but has a desired beauty because of its transparency.

To construct slash chords, it is suggested that the student learns the ratio of upper structure to root and its implied modality. As an example, a Lydian-augmented is a III/I, or major triad a major third above the root: E/C.

The following is a construction of major triads over all of the notes of the chromatic scale, offering all possibilities of construction.

In addition, the chords are placed in an order of increased tension as determined by subjective class poll. Because all of the upper structures have the same sonority, their order is affected by both modal contour and sonoric tension/relaxation. And because the modality, in most cases, is obscure, the tension order has priority. Learn the ratios and the tension index number.

Example 13-1: Slash Chords


1 2 3 4 5 6 7 8 9 10 11 12
I IV V ♭VII ♭II ♭III ♭VI III ♭II VI ♭V ♭VII
Ionian Mixolydian Lydian Aeolian Lydian ♯5 Phrygian altered ♭♭7 Locrian Lydian ♯2
I/I IV/I etc.....

CHORD CONNECTION

Since the means of chord connection for upper structure chords have been covered in a previous chapter, only the new methods, peculiar to slash chords, will be shown in this chapter. Review the methods in the chapter on upper structure chord connection if needed. The additional methods used in this chapter are the result of the way that groups of chords with transparent sonority need to show a sense of development.

METHODS OF CONNECTION

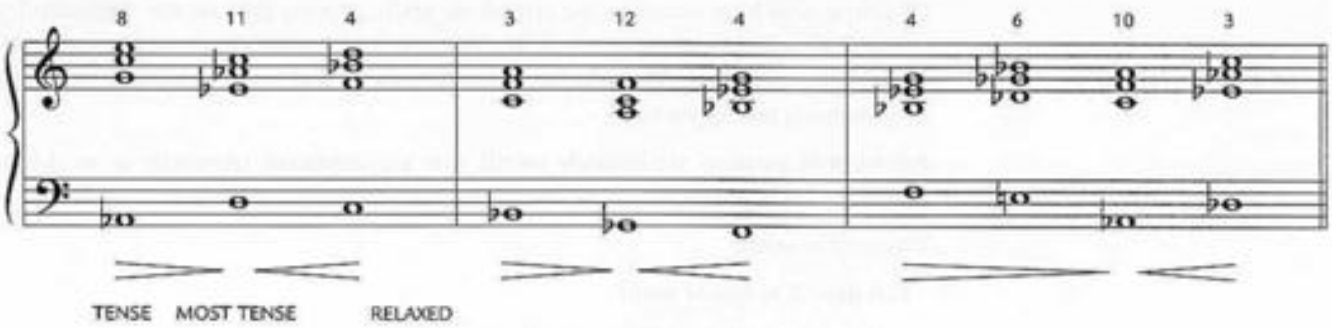
1. Common upper structure
2. Pedal point
3. Modal contour
4. Tension coutour
5. Cryptic cadences
6. Symmetric patterns

The first three are covered in previous chapters.

TENSION CONTOUR

Referring to the tension index number rather than the modal contour, this is the organization of a group of chords, usually three to six, that follow a preset contour of tense to relaxed, relaxed to tense, or a mix of the two. Note that this technique is used most in areas of transition just prior to a repose area, but could be placed anywhere. You must bear in mind the effects of other musical elements: tessitura, harmonic melody, harmonic rhythm, and tempo when composing these.

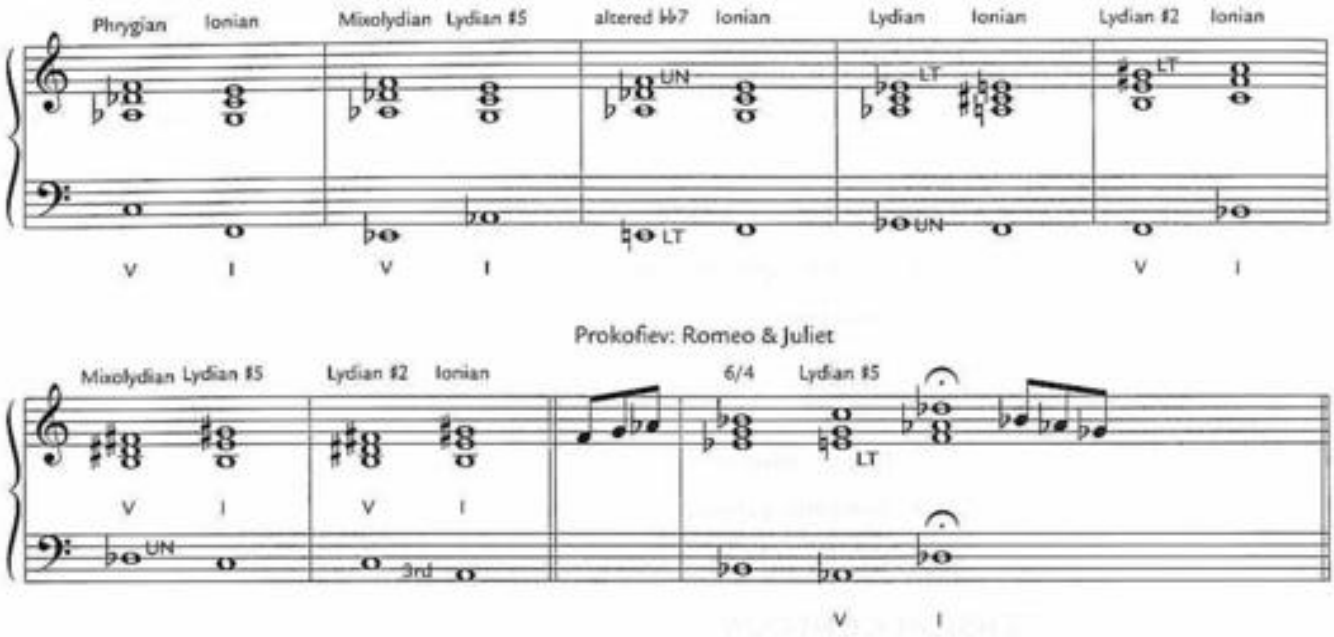
Example 13-2:



CRYPTIC CADENCES

This is the slash chord version of cadence parody as found in Chapter VII. Rather than mimic modal comparisons, the point of emphasis in this method is on the melodic aspects of the roots of the diatonic cadence and the resolution qualities of voice-leading. The upper structure, being a basic triad, always has its tonic as part of the chord so can be treated as a separate tonality.

You can organize the upper structures as a V-I, the roots as a V-I, and both the US and roots as leading tones resolving upward or upper neighbor tones resolving downward. It is the different ratios of the US to the bass that give a variety of results.

Example 13-3:

SYMMETRIC PATTERNS

Symmetry in itself defines a sense of organization. In addition, the transparency of the triadic slash chord in no way obscures the symmetric melodic contour, so it is a workable combination to be explored here.

There are many sources of examples of melodic symmetry available for reference. The most comprehensive is probably *The Thesaurus of Scales and Symmetric Patterns* by the theorist Nicholas Slonimsky.

Of course, you have access to the symmetric scales of everyday use: the diminished, augmented, whole-tone and chromatic scales. You may find it musically advantageous to be able to compose your own. The process is mathematical, and quite applicable to computer programming (see appendix).

Symmetrical patterns are basically motifs that are sequenced repeatedly at an increasing symmetric ratio.

You need to select:

1. A basic 2 to 6-note motif
   (a) select number of semitones for intervals
   (b) select directions (up or down)
   (c) select note values
2. An interval of sequence
3. A direction of sequence

The combination of the motif and the sequence interval gives the total length of the motif.

EXAMPLE:

1. 2-note motif plus one for sequence.
2. First note down four semitones (major third).
3. Second note up three semitones (minor third).

4. Sequence interval up three semitones (minor third).

start:	0	d4	u3	(u3)	d4	u3	(u3)	d4	u3			
result:	E	C	E♭	F♯	D	F	A♭	E	G	etc.		
motif:	u1	u4	d3									
sequence:		u2										
result:	0	u1	u4	d3	(u2)	u1	u4	d3	(u2)	u1	u4	d3
	C	D♭	F	D	E	F	A	F♯	G♯	A	C♯	A♯ etc.

To create symmetric scales, keep the motif length under three and keep them all in the same direction. A 1-note motif is best.

EXAMPLE 1:

motif:	1								
sequence:	2								
result:	0	1	2	1	2	1	2	1	2
	C	D♭	E♭	E	F♯	G	A	B♭	C (aux. diminished scale)

EXAMPLE 2:

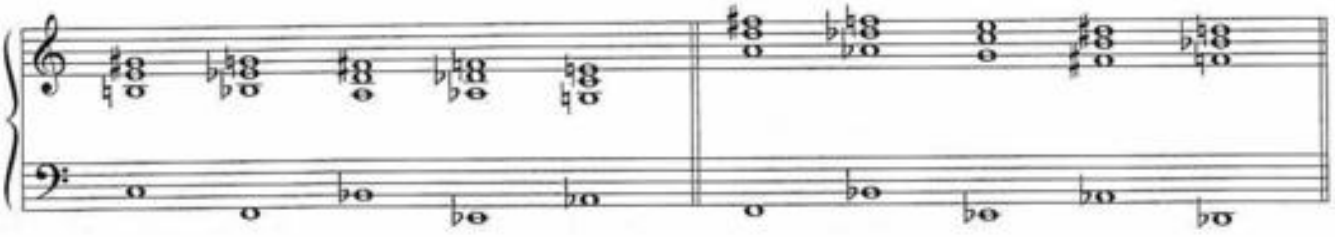
motif:	1	3					
sequence	2						
result:	0	1	3	2	1	3	2
	C	D♭	E	F♯	G	B♭	C (works with C alt)

HARMONIZING THE SYMMETRIC PATTERNS

PROCEDURE

Once you have created or selected the symmetric patterns you will use, the process is to place the US triad with the top note following the symmetric melody. There are thirty-six possible modal results of the combination of a triad over its root. There is the choice of one of twelve semitones of the chromatic scale, where the top melody's starting note is placed, multiplied by the choice of one of the three inversions of the upper triad. Each one of those choices creates a chord with modality that differs from the results of another choice. The easiest way to begin is to determine a median range tessitura for the top and bass melodies within their usually found ranges. As an example, if the top melody has six notes which span over an octave going downward, you will need to start the melody above the second C above middle C. This would result in the overall melody being in a median tessitura. Follow the same procedure for the bass melody. Once the tessituras are set, select a modality for the first chord. Refer to Example 13-4 (bar 1), the first root is a C; by selecting a G♯ for the starting note of the top melody, with the selected inversion of the triad, the resulting modality is Lydian augmented. Had the top melody started on a G natural instead, the first chord would have been a C-7. You will need to experiment with various starting notes to create a group of chords with aesthetically satisfying modal contour. The harmonic results of this technique are used in active areas of the harmonic scheme: turnarounds, the transition areas that approach a repose area and, if the harmonic rhythm is slow enough, a set of these chords could be the entire content of a section.

Example 13-4: Harmonized Symmetric Patterns



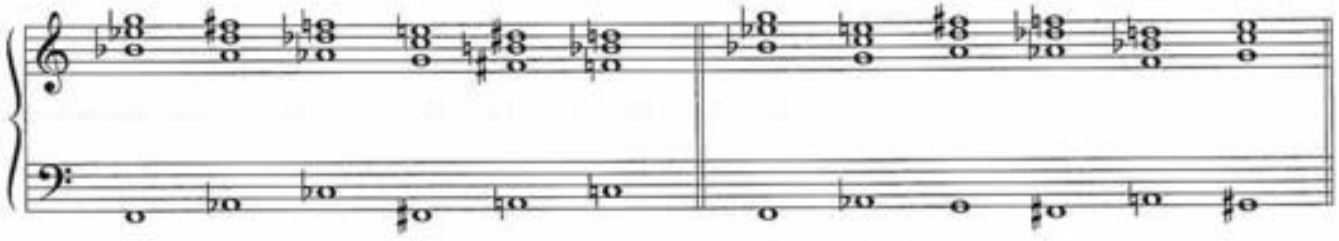
Top: chromatic scale, down

Bass: cycle of fifths

Start: Lydian-augmented

Top: chromatic down

Bass: cycle

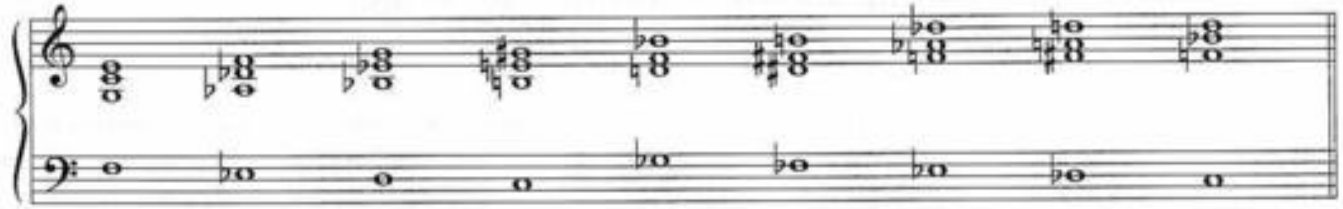
Start: Locrian ♭♭7

Top: chromatic down

Bass: sequenced thirds

Start: Mixolydian sus 4

Top: sequenced pattern

Bass: sequenced pattern

Start: Mixolydian sus 4

Top: auxiliary diminished scale

Bass: sequenced Dorian tetrachord

Start: Ionian, no 3

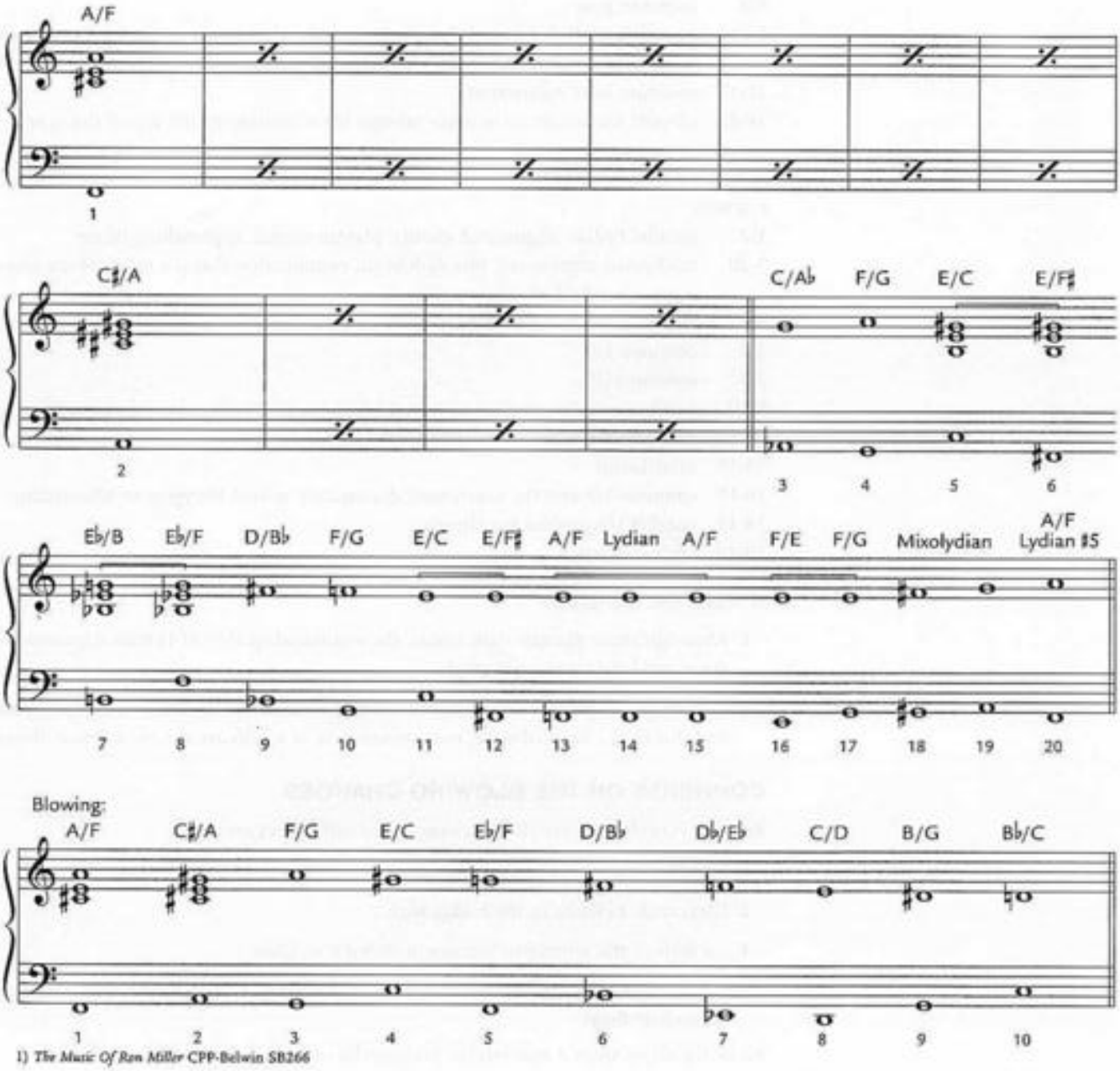
As you can see from the examples, the symmetric motif starts to repeat after a number of chords. The modal contour repeats as well. When creating these examples, you need to include enough chords to show the pattern of repetition.

ANALYSIS OF SLASH CHORD HARMONIC CONTOURS

The analysis of slash chord harmonic contours is pretty much the same procedure as with non-slash chord contours. In addition to that which was covered with non-slash chord harmonic schemes, we will point out US to bass ratios, symmetric patterns, and cryptic cadences. Where we had concern for brightness to darkness comparisons and momentum contours, now we need to point out tension contours. We will look at four compositions, all have harmonic contours that can be organized as slash chords and all have typically romantic melodies (covered in Volume 2).

1. LOST ILLUSIONS[1] – RON MILLER, 1978

This is a very stark sounding composition, its harmonic construction being primarily derived from slash chords. Its tempo is very fast. The emotional intent is anger. There are two sets of changes, one for the "head" and one for "blowing," this is to make the improvisation more accessible and gives the composition a stronger sense of development.

Example 13-5:

1) *The Music Of Ron Miller* CPP-Belwin SB266

COMMENTS (the "head" portion)

A. BASS MELODY

CHORDS:

1-2 increased tension with the upward skip
3 passing note to set up tessitura of the bridge section
4-9 cycles sequenced down chromatically
10-11 another cycle, up a major second from last
12 upper neighbor to next section
13-15 common tone (pedal point) connection
16-17 the much used minor third upward movement

B. TOP MELODY

CHORDS:

1-2 color tones
3-4 contrary motion
5-6 common tone
7-8 common tone
5-11 general overall downward chromatic melody, the chords of the bridge were derived from symmetric patterns: top-chromatic down, bass-cycle of fifths
11-17 common tone connection
18-20 upward movement to increase tension for resolution to the top of the tune

C. HARMONIC MATERIAL

CHORDS:

1-2 parallel Lydian-augmented chords, plateau modal, approaching linear
3-20 the Lydian-augmented, Mixolydian sus combination that is a result of the symmetric pattern method of construction
3-4 cryptic cadence-V-I in upper, upper neighbor down in bass
5-6 common US
7-8 common US
9-10 pattern, contrary motion minor third up for top, minor third down in bass
11-12 common US
13-15 modal shift
16-17 common US and the much used diatonically related Phrygian to Mixolydian
18-19 parallel Mixolydian sus chords
19-20 cryptic cadence

D. GENERAL QUALITIES

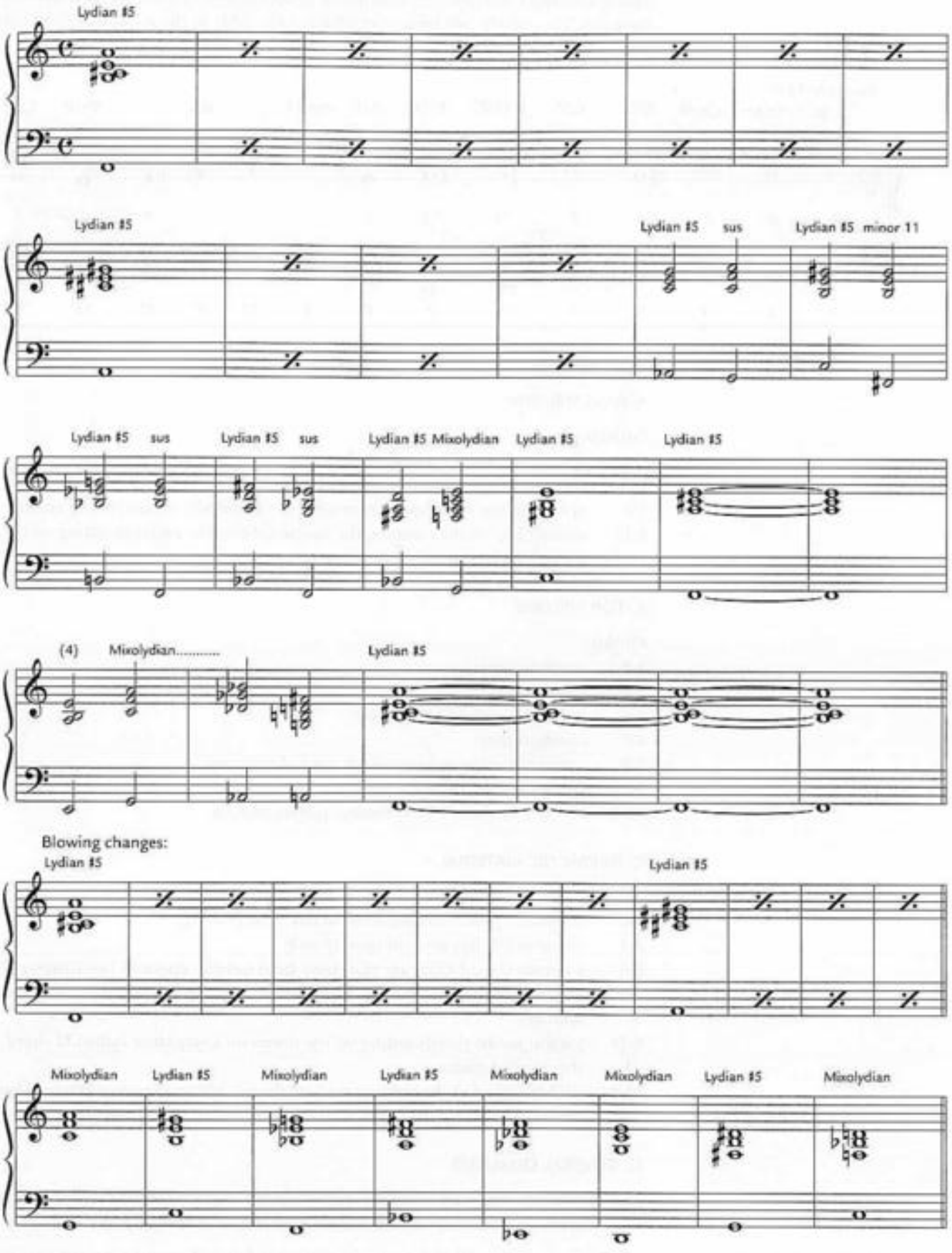
1. Although more plateau than linear, the emotional quality of Lydian-augmented-active, tense and bright comes through.
2. The bridge is still very active due to the faster harmonic rhythm – it is vertical modal – and due to the implied cycle, root movements of a fifth are the most active of any.

COMMENTS ON THE BLOWING CHANGES

Actually very close to the "head" changes, the differences are:

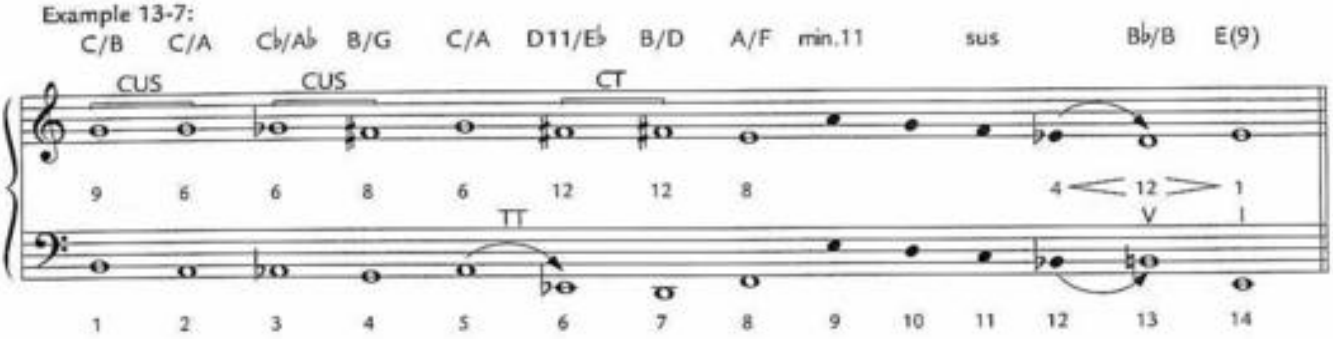
1. More symmetric harmonic rhythm.
2. Clear cycle of fifths in the bridge with...
3. ...a shift of the symmetric pattern at chord 8 to allow...
4. ...a dominant sus 4 chord as the last chord which will resolve to the first chord, giving a "rounded" form.

All of the above show a concern for making the tune more "playable."

Example 13-6: "Lost Illusions" by Ron Miller

2. YELLOW FIELDS[1] – EBERHARD WEBER

This is a compact and clearly vertical modal composition with good examples of slash chord formulas. The melody, not being romantic in style, adds to the starkness of the harmonic style.

Example 13-7:



COMMENTS

A. BASS MELODY

CHORDS:

1-4 downward stepwise, nondiatonic
5-6 the tritone skip down is very active, an implied cycle
7-8 upward minor third, contrary motion to top melody, a slash chord pattern
9-13 starting high in the tessitura, the downward contour assists in setting up the climax
13-14 the root movement of a V-I

B. TOP MELODY

CHORDS:

1-2 common tones
3-4 common tones
5-6 implied voice-leading of a cycle
6-7 common tone
7-8 contrary motion to bass melody, part of a pattern
9-13 parallel motion to bass melody
13-14 contrary motion to bass, another pattern like 7-8

C. HARMONIC MATERIAL

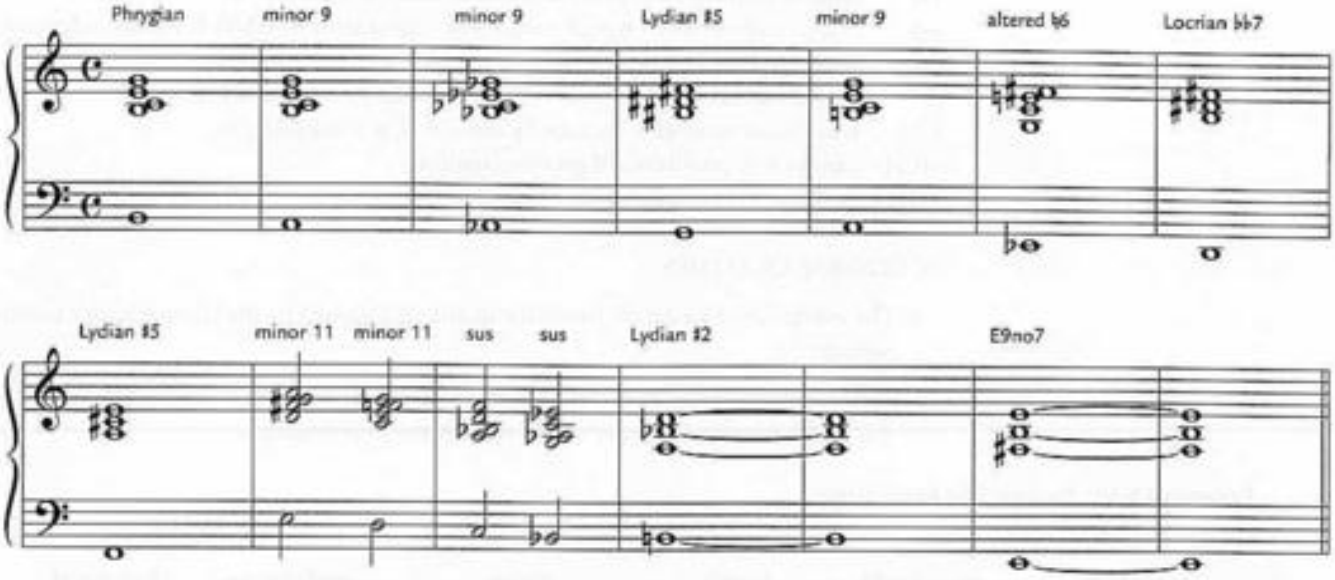
CHORDS:

1-2 common upper structure, tense to less tense (9 to 6)
3-4 common US, less tense to tense (6 to 8)
5-6 a hidden C triad CUS, use of a chord from melodic minor ♯5 (see Chapter XV)
7-8 a pattern of top triad down a major second, bass up a minor third, also a release of tension
9-13 parallel modal chords setting up the climax on a very tense Lydian ♯2 chord
13 the point of climax
13-14 a V-I release of all the previous tension, the sus 2 (9 no 7) nonmodal chord being very bright, relaxed and final; this is a great example of cryptic cadence

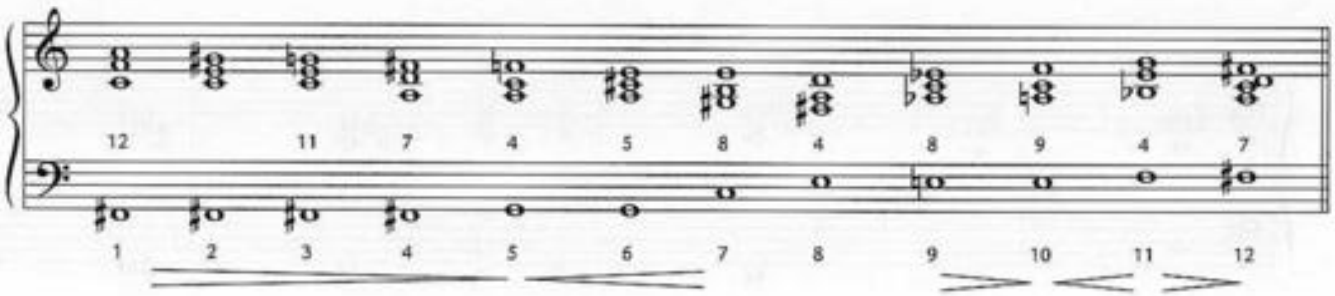
D. GENERAL QUALITIES

1. This is a very well written and compact composition; Eberhard is one of the contemporary "masters." All his compositions show a great deal of intelligence and musicality.
2. Being vertical modal, the emotional contour is derived from other aspects than modality.

1) *Yellow Fields*, ECM 1066

Example 13-8: "Yellow Fields" by Eberhard Weber

3. SOLSTICE[1] – KEITH JARRETT ca. 1973

This very short, through-composed piece, at first glance seems quite simple. But, as the analysis reveals, there is hidden darkness here. The composition is one large tension contour with a gradual increase to a final release.

Example 13-9:

COMMENTS

A. TOP MELODY

CHORDS:

1-8 lengthy chromatic melody, downward, getting darker
8-11 a short upward return, preparation for the following...
11-12 ...upper neighbor resolution downward

B. BASS MELODY

CHORDS:

1-4 common tone, repose area
5 - 7 transition area by cycle
8-10 repose
11-12 short transition, leading tone up

1) *Belonging*, ECM 1050

C. HARMONIC MATERIAL

CHORDS:

1-5 tension contour with gradual decrease, index #: 12, 11, 7, 4

4-5 cryptic cadence with typical minor third movement in US D-F, modal cadence with first inversion D to a G Mixolydian chord

6-7 modal cadence as dominant cycle Mixolydian ♯4 to Lydian-augmented

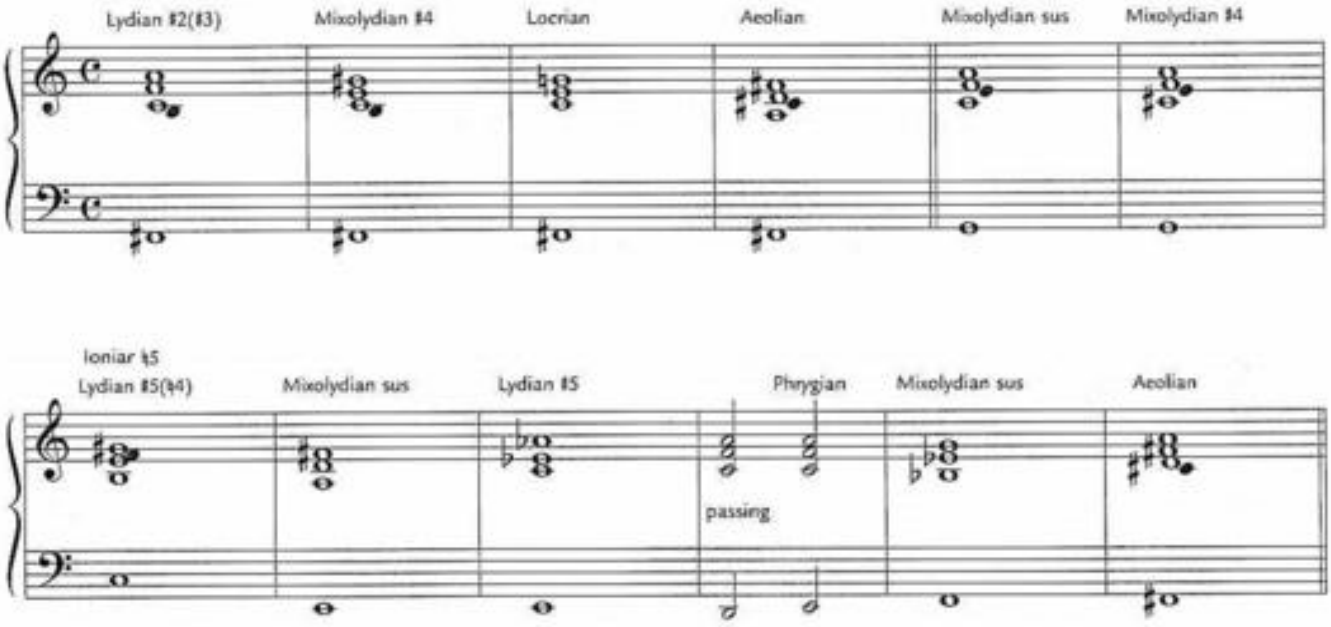
8-10 tension contour with increase by index #: 4, 8, 9 resolving to...

10-11 ...index # 4, resolution of previous tension

11-12 pattern of chromatic contrary motion

D. GENERAL QUALITIES

1. The overall tense and dark harmonic quality is softened by the composition's romantic melody.
2. The long tension contour creates an emotional quality of being "rhapsodic." In addition, this is the emotional quality of the subsequent improvisation.

Example 13-10: "Solstice" by Keith Jarrett

SUGGESTED EXERCISES

PART I

1. Create four symmetric patterns, motif length two to four.
2. Harmonize six examples of symmetric patterns in both the upper and bass parts.
3. Create four symmetric scales; present like in the previous pages.
4. Create four cryptic cadences; label method used (see examples in text).
5. Create four tension contours; label tension index, and include cresendo and decresendo markings to show intended contour.

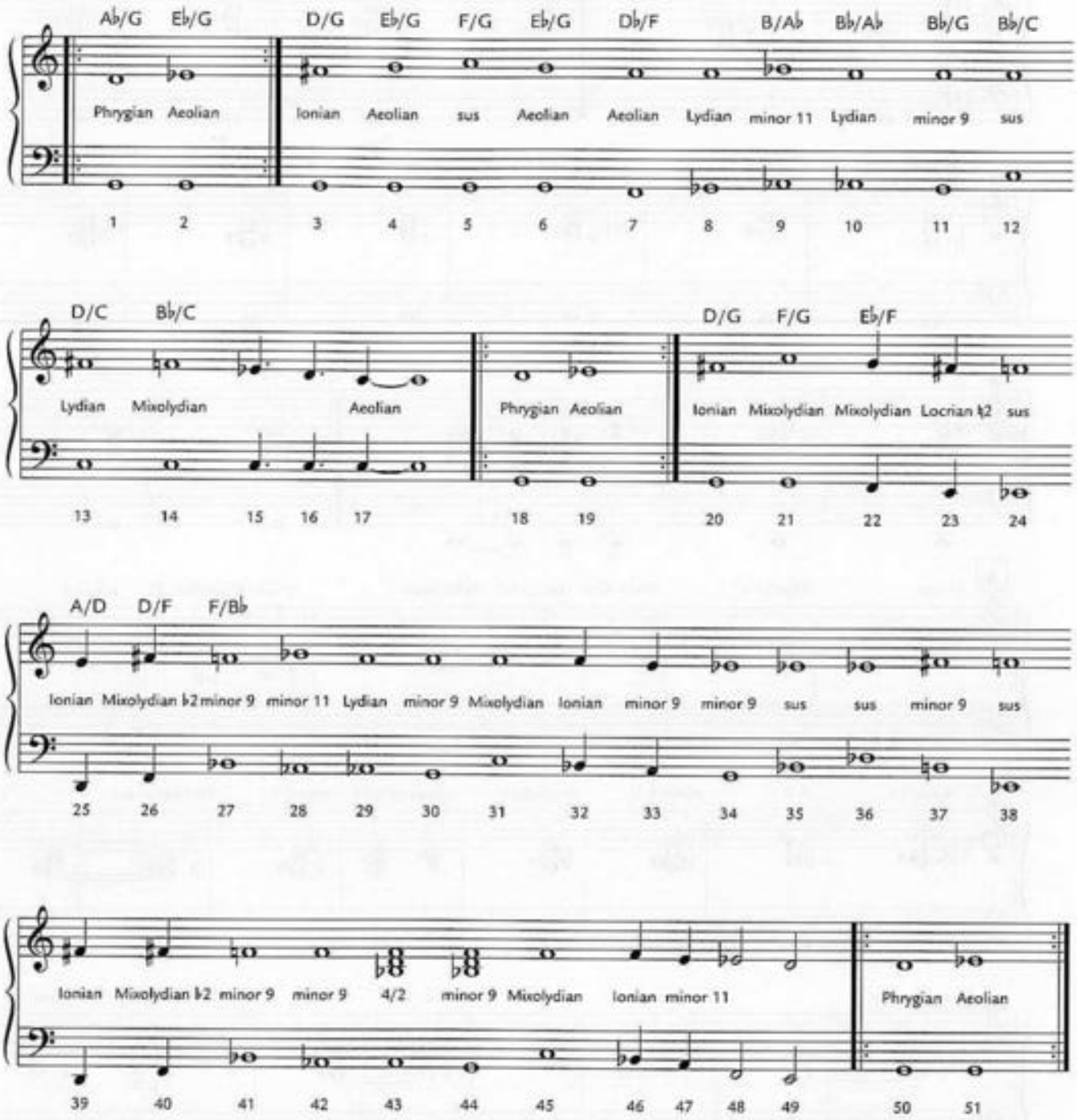
PART II

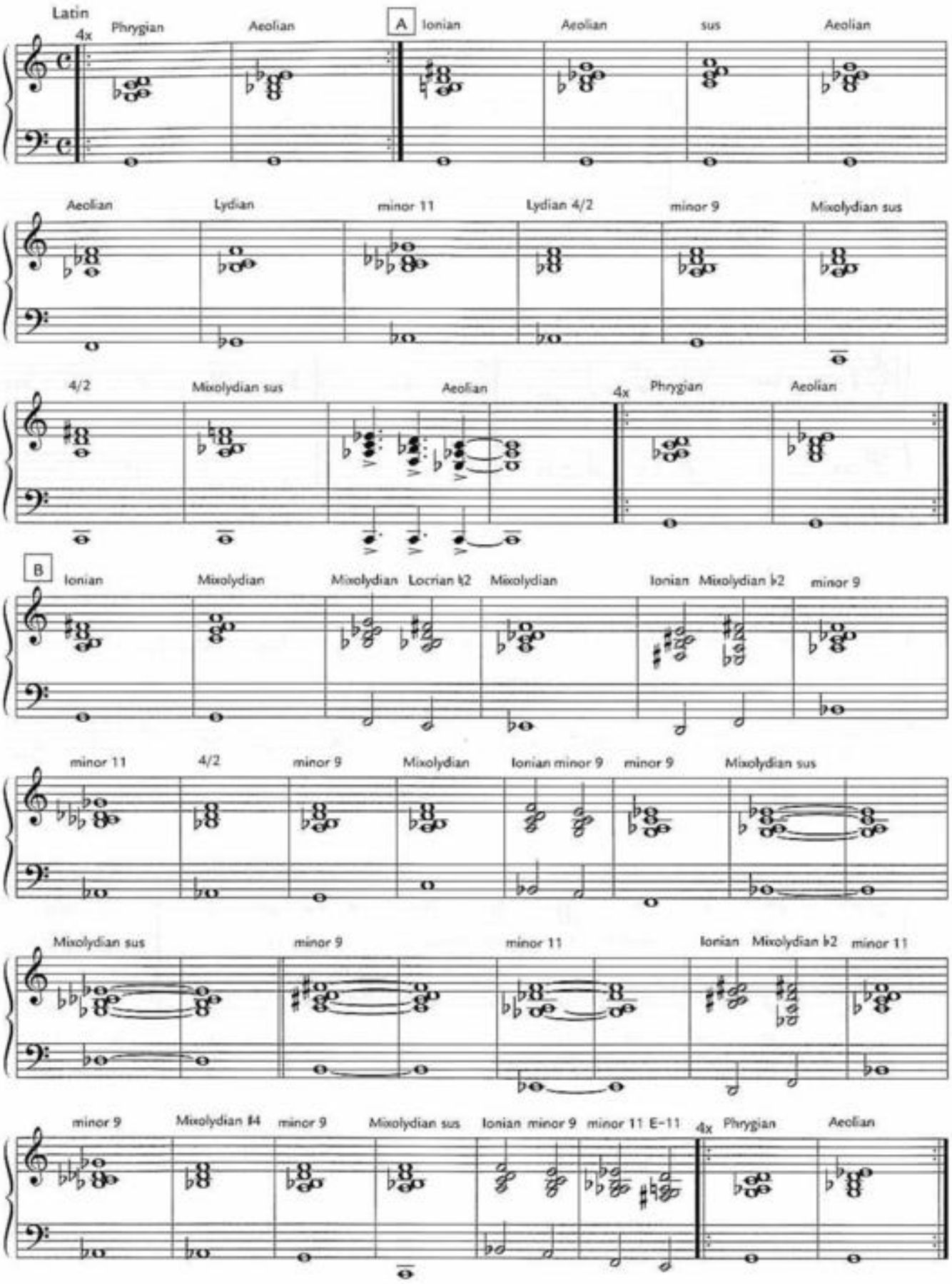
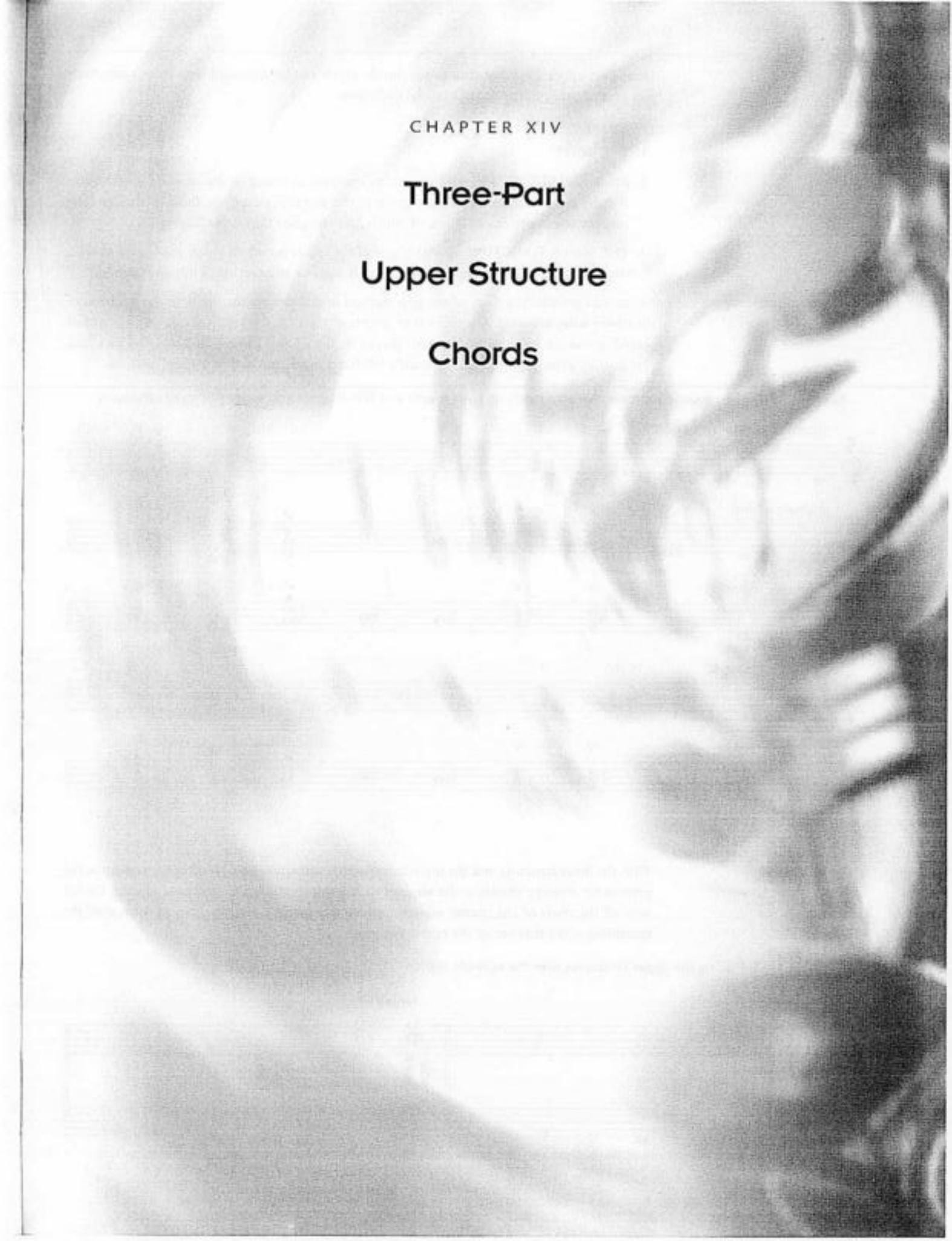
Analyze the included synopsis of the composition "Ana Maria" by Wayne Shorter by the methods shown for previous examples. It is found on the CD *Native Dancer* (CBS VCK 46159) if you need a listening.

PART III

1. Create a set of chords for a composition in which all or a large section of the chords is derived from symmetric patterns, tension contour, or cryptic cadences.
2. Analyze the finished composition, using the examples of this chapter as a guide.

"ANA MARIA" BY WAYNE SHORTER - HARMONIC SYNOPSIS


Ab/G Eb/G D/G Eb/G F/G Eb/G Db/F B/Ab Bb/Ab Bb/G Bb/C
Phrygian Aeolian Ionian Aeolian sus Aeolian Aeolian Lydian minor 11 Lydian minor 9 sus
1 2 3 4 5 6 7 8 9 10 11 12
D/C Bb/C D/G F/G Eb/F
Lydian Mixolydian Aeolian Phrygian Aeolian Ionian Mixolydian Mixolydian Locrian ♮2 sus
13 14 15 16 17 18 19 20 21 22 23 24
A/D D/F F/Bb
Ionian Mixolydian ♭2 minor 9 minor 11 Lydian minor 9 Mixolydian Ionian minor 9 minor 9 sus sus minor 9 sus
25 26 27 28 29 30 31 32 33 34 35 36 37 38
Ionian Mixolydian ♭2 minor 9 minor 9 4/2 minor 9 Mixolydian Ionian minor 11 Phrygian Aeolian
39 40 41 42 43 44 45 46 47 48 49 50 51

"ANA MARIA" BY WAYNE SHORTER



CHAPTER XIV

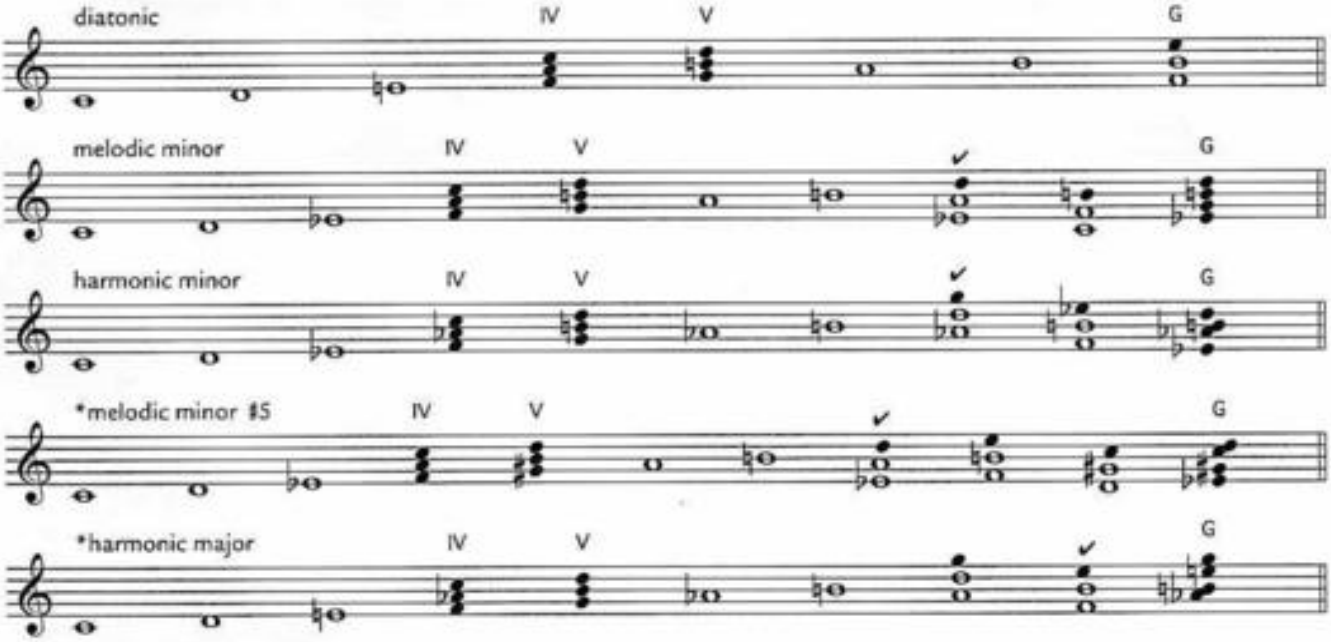
Three-Part Upper Structure Chords

Three-part upper structure chords are chords which can be separated into three parts, each part contributing to the chord's modal definition.

The three parts are:

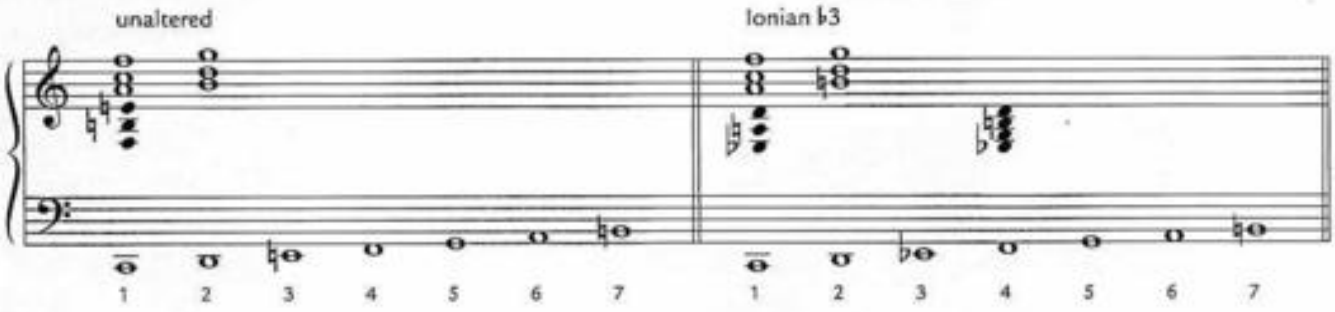
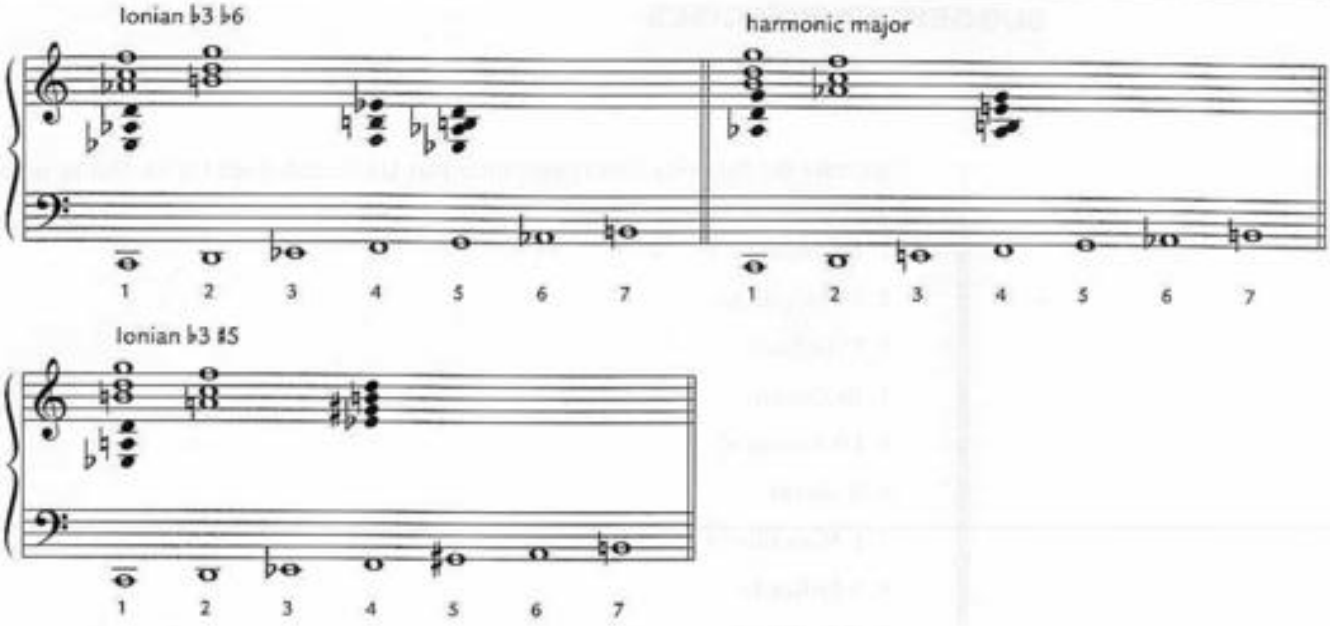
1. THE ROOT
2. AN INNER STRUCTURE which contains a tritone, as found in the acoustic source scale. If there is more than one tritone present, the one containing the third of the acoustic source scale is preferred. These, of course, are the grips found in Chapter VI.
3. THE UPPER STRUCTURE TRIAD is one of the triads found on either the fourth or fifth degrees of the parent scale, which is usually a major triad unless it has alterations.

As you can see, this is a form of the grip method of chord construction with the addition of the upper structure triad. Also known as "rootless" voicings, for keyboard playing, the grip is played by the left hand with the triads played by the right. The root is completed by a bass player or by prior playing by the pianist's left hand in the method of "stride" pianists.

Example 14-1: The acoustic source scales with triads on their fourth and fifth degrees and suggested inner structures

*) See Chapter XV

With the inner structure and the top triads together acting as a combined upper structure, the process for creating chords is the same as with two-part chord construction: placing the US over all the roots of the parent acoustic source or experimenting by placing them over the remaining roots that are in the chromatic scale.

Example 14-2: Placing the upper structures over the acoustic source

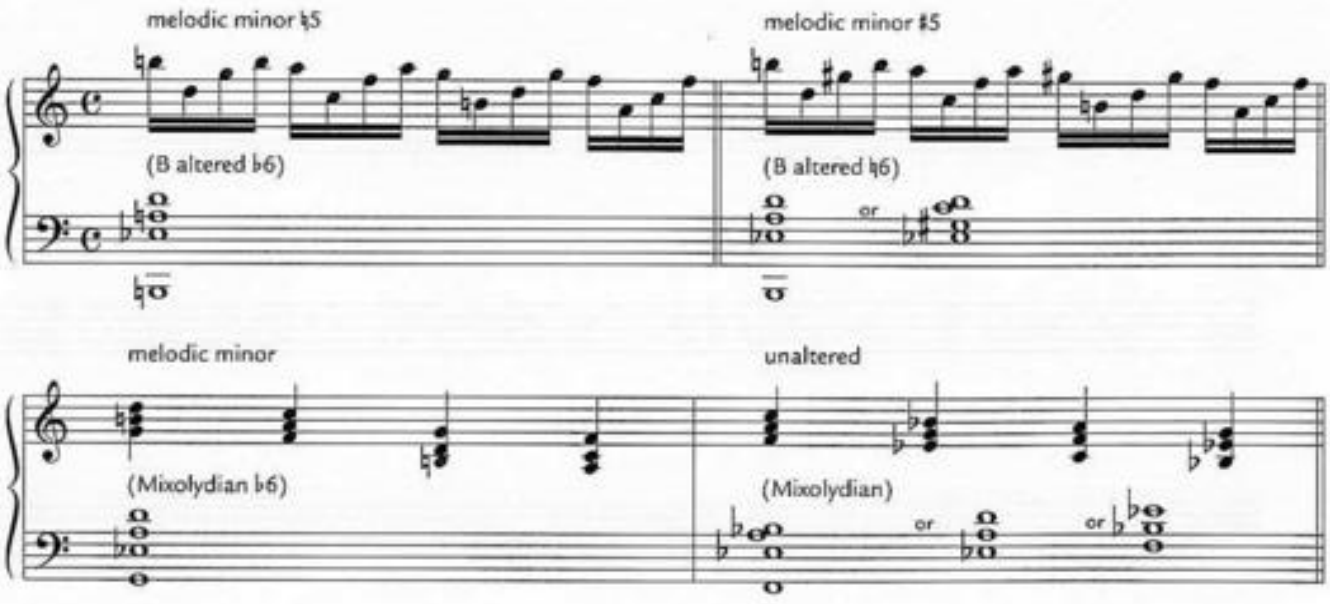


The resulting modality of all of the above is found in previous chapters.

To find the acoustic source, resolve the tritone that has the leading-tone natural 7.

EXAMPLE: The C melodic minor example (bar 2 of Example 14-2) has the tritone F to B which resolves to C Ionian ♭3.

Because one triad by itself, in most cases, dosen't fully define a chord's modality, you often find that both triads are used in combination, on different beats, of course.

Example 14-3: Use of both US triads

The three-way upper structure technique is not found only in jazz harmonic systems; it is a prominent technique of film scoring, big band arranging, and classical music. Try to identify its use in your listening sessions.

SUGGESTED EXERCISES

Construct the following chords with three-part US. Include both US for four of them. Also include a chord symbol over the chord.

1. E♭ Ionian ♭4
2. E Phrygian ♭3
3. F Aeolian
4. B♭ Dorian
5. D♭ Aeolian ♭5
6. E altered
7. F Mixolydian ♯4
8. F Lydian ♯2
9. C Aeolian ♭7
10. G Mixolydian ♭6

CHAPTER XV

The Modes and Chords of

Altered Diatonic No.3 and No.4

IONIAN ♭6 (Harmonic Major) and IONIAN ♭3 ♯5 (Melodic Minor ♯5)

These last two sets of modes and their chords are the most esoteric of the jazz harmonic vocabulary. Use of material from the first group is found on only the most contemporary of harmony based compositions. Use of some chords from the second group can be found in early jazz harmony but without a reference to its source.

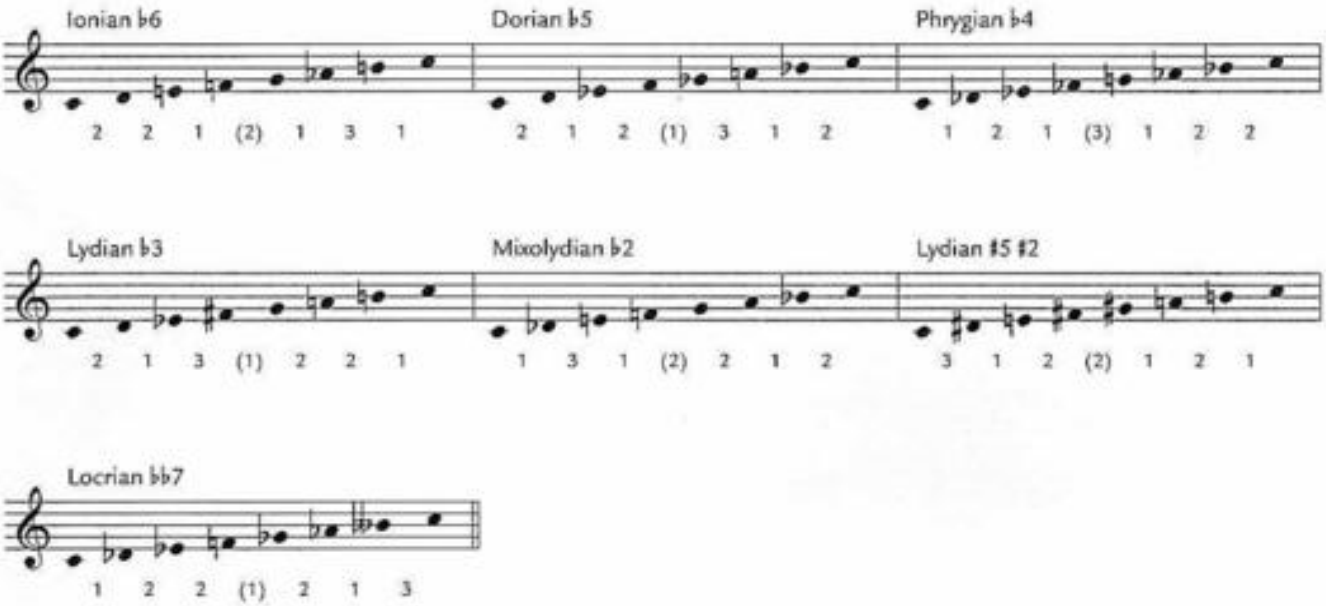
A. IONIAN ♭6 (HARMONIC MAJOR)

THE TETRACHORD FORMULAS

MODE	TETRACHORDS	SEMITONES	CONNECTOR
Ionian ♭6	Ionian & Harmonic	221 & 131	2
Dorian ♭5	Dorian & Hungarian Major	212 & 312	1
Phrygian ♭4	Spanish & Phrygian	121 & 122	3
Lydian ♭3	Hungarian Minor & Ionian	213 & 221	1
Mixolydian ♭2	Harmonic & Dorian	131 & 212	2
Lydian-aug. ♯2	Hungarian Major & Spanish	312 & 121	2
Locrian ♭♭7	Phrygian & Hungarian Minor	122 & 213	1

As with previous altered diatonic modes, the descriptions can be determined by a comparison with the parent Ionian, pointing out the differences obtained by the alteration. Ionian ♭6 is a darker version of Ionian, Lydian-augmented ♯2 a brighter and more tense version of Lydian, etc.

Example 15-1: The Modes of Harmonic Major



CONSTRUCTION OF THE CHORDS OF HARMONIC MAJOR

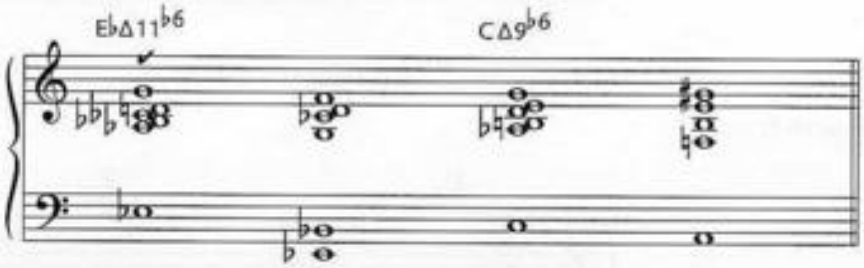
THE TABLE OF COLOR TONES

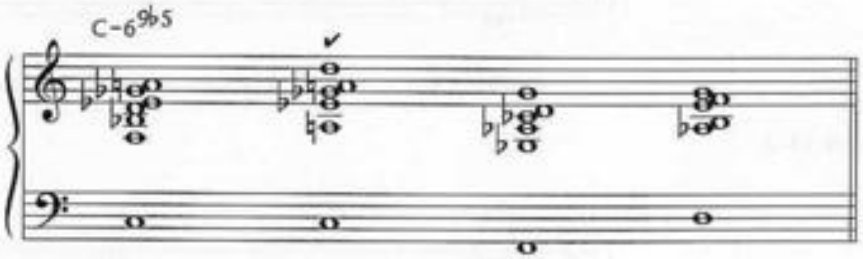
Ionian ♭6	♭6	7	4	3	5	2
Dorian ♭5	♭5	6	♭3	4	2	♭7
Phrygian ♭4	♭4	♭2	5	♭3	♭6	♭7
Lydian ♭3	♭3	♯4	7	2	5	6
Mixolydian ♭2	♭2	♭7	3	4	6	5
Lydian-augmented ♯2	♯2	♯5	7	3	♯4	6
Locrian ♭♭7	♭♭7	♭5	♭2	♭3	4	♭6

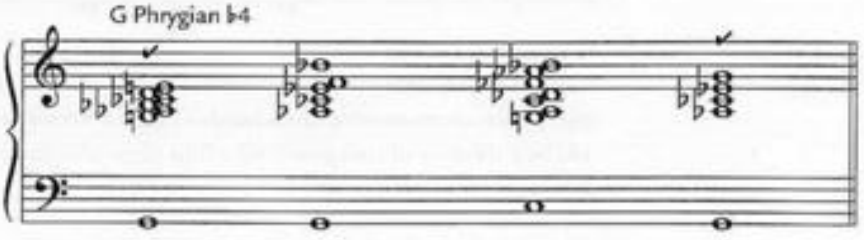
At least the first three of the tones are needed to define the mode. The order of the last three is not strict.

REPRESENTATIVE CHORD EXAMPLES

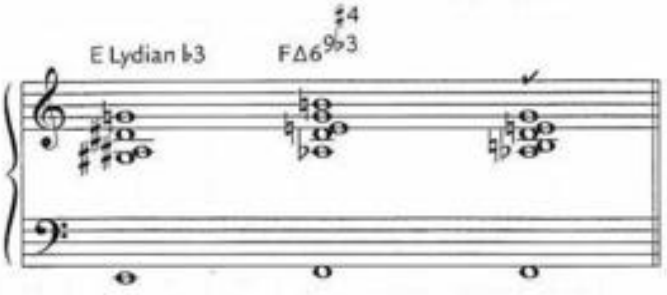
1. IONIAN ♭6 – Sounds like a dreamy Lydian-augmented or a dark Ionian; include the ♮5 to show that it isn't Ionian ♯5 or Lydian-augmented.

Example 15-2:

2. DORIAN ♭5 – Has an implied diminished sound, including the ♮4 verifies that it isn't Dorian ♯4.

Example 15-3:

3. PHRYGIAN ♭4 – Similar to altered ♮6, including the ♮5 verifies it isn't. It has a very "dominant" sound.

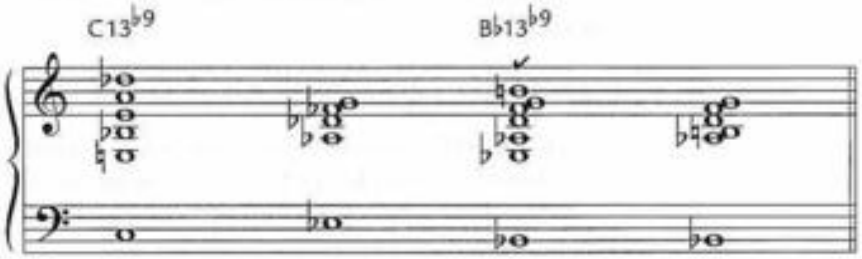
Example 15-4:

4. LYDIAN ♭3 – Being similar to Lydian ♯2, include the ♮2 for verification (see "Mikell's" by Calderazzo.

Example 15-5:



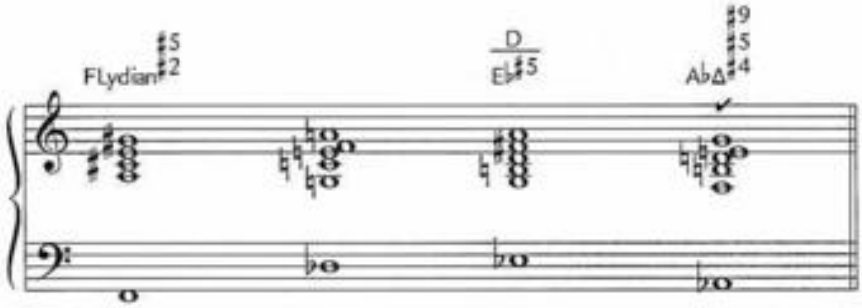
5. MIXOLYDIAN ♭2 – This is the source of the much used dominant ♭9 chord.

Example 15-6:

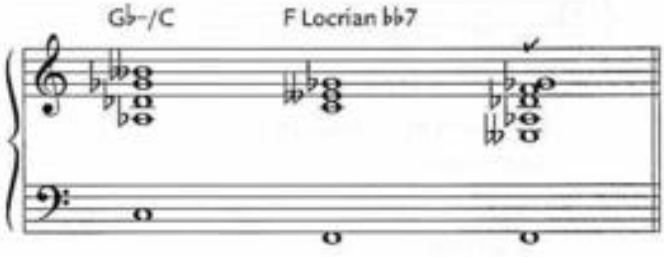


6. LYDIAN-AUGMENTED ♯2 – Can sound like a slash chord, A∆/F, or polychord D/E♭♯5.

Example 15-7:



7. LOCRIAN ♭♭7 – A brighter, more active sounding Locrian.

Example 15-8:

Because of the ambiguity and resident tension of most of these chords, they should be either mixed with more conventional chords or used with slower harmonic rhythm. Of course, there will be a number of composers who find these chords to quite satisfy their aesthetic requirements.

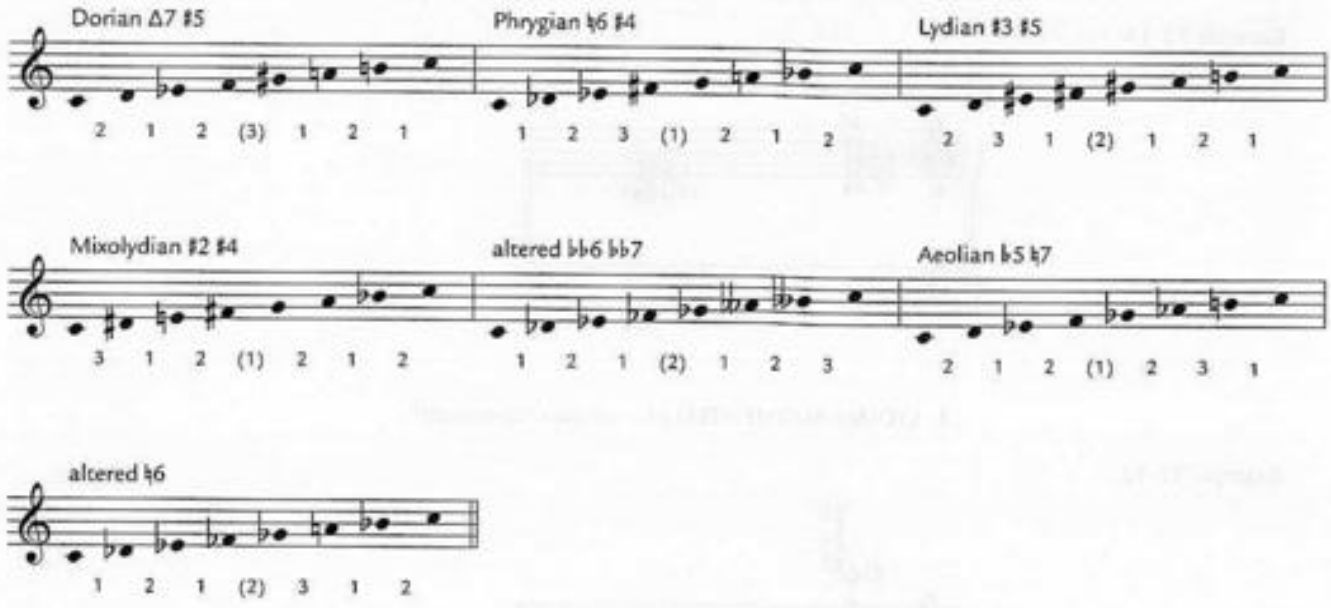
B. IONIAN ♭3 ♯5 (MELODIC MINOR ♯5)

This group of modes contains some very beautiful chords for achieving a modern sound. The combination of the darkness of the flatted third with the brightness of the sharped fifth of the source scale offers a great quality of "interest." A number of these chords have been in use from the times of Mingus to Brecker, but there has not been too much, if any, explanation of their source and construction. Two such chords found in common use are the Mixolydian ♯9 and the altered ♭6. In addition, two new tetrachords are introduced and used in the mode's construction. Looking at the exotic tetrachord combinations, one wouldn't think these modes/chords would sound as good as they do. Also, note that these modes are a form of missing note diminished scale and all the chords can be used with a diminished scale – or for improvisors, the diminished scale can be used with any of the chords (see tetrachord construction in the appendix).

THE TETRACHORD FORMULAS

MODE	TETRACHORDS	SEMITONES	CONNECTOR
Dorian ♭7 ♯5	Dorian & Spanish	212 & 121	3
Phrygian ♭6 ♯4	Hungarian Phrygian & Dorian	123 & 212	1
Lydian ♯5 ♯3	Hungarian Pentatonic & Spanish	231 & 121	2
Mixolydian ♯2 ♯4	Hungarian Major & Dorian	312 & 212	1
Altered ♭♭6 ♭♭7	Spanish & Hungarian Phrygian	121 & 123	2
Aeolian ♭7 ♭5	Dorian & Hungarian Pentatonic	212 & 231	1
Altered ♭6	Spanish & Hungarian Major	121 & 312	2

Example 15-9: The Modes of Melodic Minor ♯5



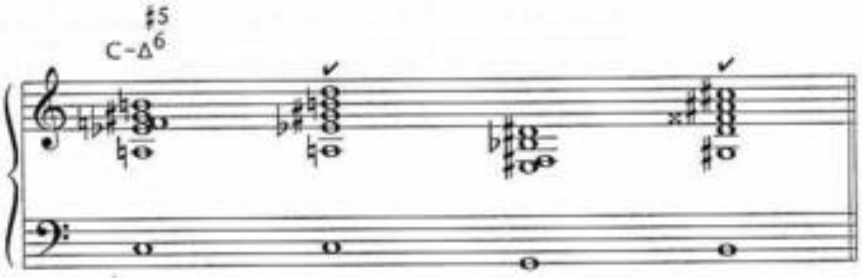
CONSTRUCTION OF THE CHORDS OF MELODIC MINOR ♯5

THE TABLE OF COLOR TONES

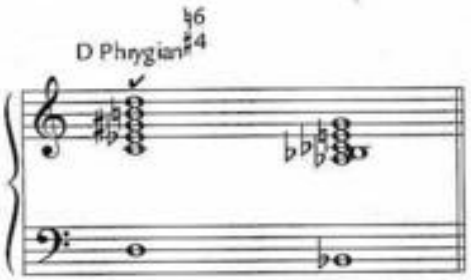
Dorian ♮7 ♯5	♯5	♭3	♮6	♮7	2	4
Phrygian ♮6 ♯4	♯4	♭2	♮6	♭7	♭3	5
Lydian-augmented ♯3	♯3	♯5	♮7	♯4	6	2
Mixolydian ♯2 ♯4	♯2	♭7	3	♯4	6	5
Altered ♭♭6 ♭♭7	♭♭6	♭♭7	♭4	♭2	♭3	♭5
Aeolian ♭5 ♮7	♭5	♮7	♭6	♭3	2	4
Altered ♮6	♮6	♭3	♭4	♭2	♭7	♭5

REPRESENTATIVE CHORD EXAMPLES

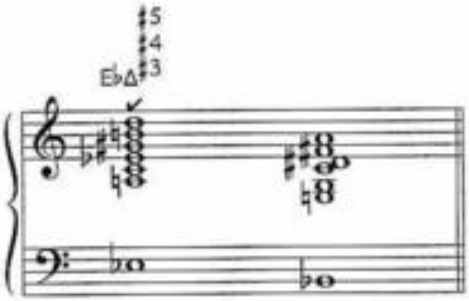
1. DORIAN ♮7 ♯5 – bright and tense

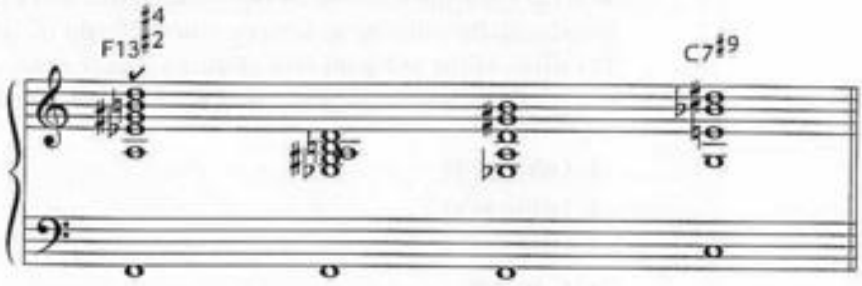
Example 15-10:

2. PHRYGIAN ♮6 ♯4 – brighter

Example 15-11:

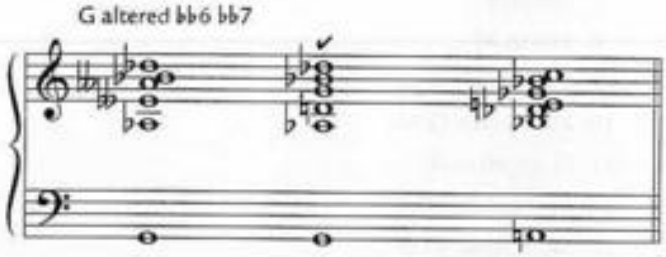


3. LYDIAN-AUGMENTED ♯3 – sounds "dominant"

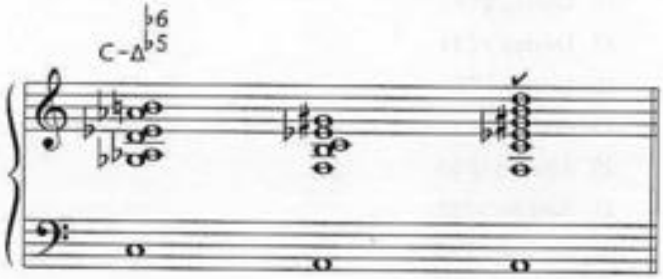
Example 15-12:

4. MIXOLYDIAN ♯2 ♯4 – the much used ♭7♯9 chord is in this group

Example 15-13:

5. ALTERED ♭♭6 ♭♭7 – not used much

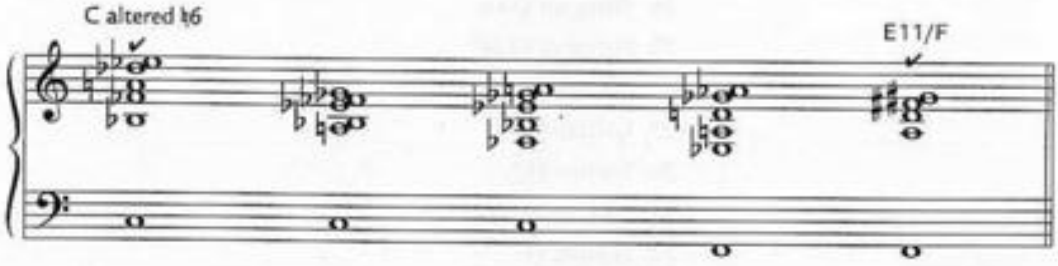
Example 15-14:



6. AEOLIAN ♮7 ♭5 – not much Aeolian quality left

Example 15-15:

7. ALTERED ♮6 – the most used of this group, has a very positive sound

Example 15-16:



This completes the construction of all the chords that will be presented for use in Volume 1 of this textbook. Not including the nonmodal group of chords, we have a formidable palette of thirty-five modal colors with which to work.

Looking at the section on tetrachord construction in the appendix, one can see the possibilities of unusual combinations and the creation of many more esoteric modes and their chords. Of course, with the listener of your creative efforts taken into account, more than a few of these and the newly created chords may not be accessible. But experiment anyway; eventually the world will "catch up."

THE COLLATED ORDER OF ALL CONSTRUCTED MODES

With the many alterations of the later constructed modes, there is much harmonic ambiguity introduced. Determining an accurate order of bright to dark is not as easy as it would seem. The effects of the ambiguity is to obscure a clear comparison. But by considering a sharping of a pitch as a brightening and a flatting as a darkening, this is the resulting order:

1. Lydian ♯5 ♯3
2. Lydian ♯5 ♮3
3. Lydian ♯2
4. Lydian ♮5
5. Lydian ♭3
6. Ionian ♯5
7. Ionian ♮5
8. Ionian ♭6
9. Mixolydian ♯2 ♯4
10. Mixolydian ♮2 ♯4
11. Mixolydian ♭6
12. Mixolydian ♮2 ♮4
13. Mixolydian ♭2 ♮4
14. Dorian ♮7 ♯5
15. Dorian ♮7 ♮5
16. Dorian ♮7 ♭5
17. Dorian ♭7 ♯4
18. Dorian ♭7 ♮4
19. Aeolian ♮7 ♮5
20. Aeolian ♮7 ♭5
21. Aeolian ♭7 ♮5
22. Aeolian ♭7 ♭5
23. Phrygian ♮7 ♯5
24. Phrygian ♮6 ♯4
25. Phrygian ♮6 ♮4
26. Phrygian ♮3 ♭6
27. Phrygian ♭3 ♭6
28. Locrian ♮6
29. Locrian ♭6
30. Locrian ♭♭7
31. Locrian ♭4
32. Locrian ♮4
33. Altered ♮6
34. Altered ♭♭7
35. Altered ♭♭6 ♭♭7

The emotional qualities also can be obscured by the added tension of the alterations, but considering as before, the basic qualities of the unaltered modes being enhanced by the alteration, Mixolydian ♯2 ♯4 has the same qualities as the unaltered Mixolydian ♮4 but a bit brighter and more active.

SUGGESTED EXERCISES

1. Construct a number of chords with all spacings; include a number of grip method constructions and a few three-part upper structure constructions.

2. Play all the chords with an ear training goal in mind; try to identify their use on recordings.

CONCLUSION

This concludes the presentation of the materials of Volume 1 of this book. Although there is sufficient information for the creation of beautiful and forward-looking harmonic schemes, harmony alone does not define music. Needed to be covered are the elements of melody, rhythmic concepts, style, and tonal harmony.

Tonal harmony is so prevalent in the student's continuing educational and listening background that further study is not that critical. Awareness of its use within style categories is important to acquiring a well-rounded harmonic concept. In particular, looking at the use of tonal harmony by the masters of that genre - Thelonious Monk, Charles Mingus, Tadd Dameron and Benny Golson - can be of benefit.

Referring to The Categories of Jazz Compositions found in the introduction of this book, it is apparent that there is a diversity of jazz styles, each with their own particular descriptions of harmonic, melodic, rhythmic, and orchestral implementations.

The serious jazz composer should be aware of those means of implementation and be able to compose in any of the listed styles. Even if the primary goal of the composer is to develop a single personal style, the ability to compose in all styles will only enhance and clarify the development of one's own style.

The goals of further volumes of this book are toward that end, with the presentation of the following subjects:

1. Harmonization/reharmonization techniques
2. Pentatonic and blues tunes
3. Tonal harmony: Monk, Mingus, and hardbop
4. Romantic melody writing
5. Avant-garde jazz compositions
6. Group compositional styles

Without access to further volumes, the student should pursue his own regimen of study by transcribing and analyzing a number of compositions from each category and compose within the studied style.

We cannot conclude without reminding the student that he must bring the process to its consummation: The presentation of his efforts to an attentive audience, whether through a live performance or through the recording process.

Appendix

1. ACOUSTICS AND MODALITY

(a) The Overtone Series

(b) Determining the PARENT SCALE and ACOUSTIC SOURCE

(c) Chord Stability

(d) Determining the Color Tones

2. CONSTRUCTION OF THE TETRACHORDS

3. ADDITIONAL EXAMPLES

(a) Common Connection

(b) Symmetric Patterns

(c) Computer Generated Examples

4. EAR TRAINING

5. TREE OF INFLUENTIAL JAZZ COMPOSERS

6. DISCOGRAPHY-BIBLIOGRAPHY

7. ABOUT THE AUTHOR

ACOUSTICS AND MODALITY

The following is not meant to be a treatise on the science of acoustics but a cursory introduction to the subject for referential purposes. The student whose interests require a more in-depth study should consult either *The Craft of Musical Composition* by Paul Hindemith, *Contemporary Harmony* by Lumila Ulehla, or *Modern Harmonic Technique* by Gordon Delamont.

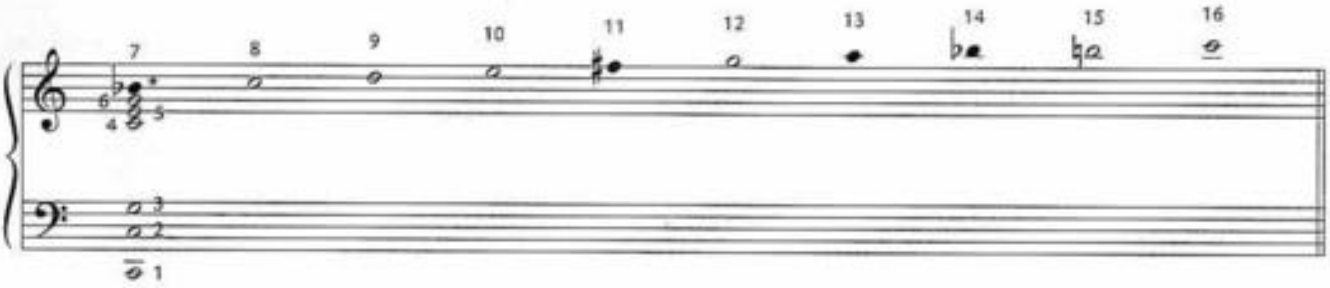
All acoustic explanation for that which occurs in harmonic and melodic application can be derived from a reference to the Overtone Series.

The overtone series (OS) is a phenomenon which is as much a part of our natural universe as is the force of gravity. Just as the prism splits the spectrum of light into a fixed order, the OS produces a series of pitches following strict natural law. Any sounded tone produces additional tones (overtones and sometimes undertones) of varying intensity. It is this variation of the intensity of the generated overtones that creates timbre.

The OS consists of partials: a fundamental pitch and its overtones.

Overtones are computed by increasing multiples of the frequency of the fundamental. If x = the fundamental, the partials are: 1x, 2x, 3x.....nx, or if the fundamental is 64 hz, the overtones are: 2x = 128, 3x = 192, etc. The spaces between the individual partials grow progressively smaller as the partial number gets higher.

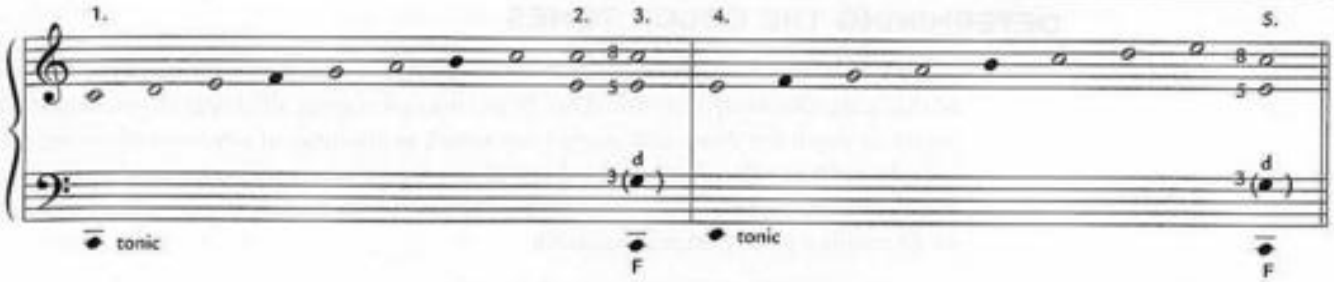
Our use of the OS requires only the knowledge of partial ratio and partial number. It is suggested that the serious student memorize the ratio of the pitches of the OS, i.e., the intervals – P8, P5, P4, etc.

THE OVERTONE SERIES:

DETERMINING THE PARENT SCALE

The parent scale, our point of reference in the stability comparisons, is the Ionian mode or commonly known as the major scale. We know by intuition and by actual listening experience that the mode seems totally "at rest." Taking a look at all asymmetric scales, one will find an interval of a tritone (sometimes there are two in altered scales). Tritones have a strong desire to resolve, up or down depending on the acoustic source. The interval of the resolved tritone is the point of reference for determining a scale's degree of stability.

When two pitches (an interval) are sounded together, a third pitch (or sometimes more) is generated naturally. This pitch is called a combination tone. Combination tones are usually determined by finding the difference in the ratio of the frequency of the sounding pitches. It is sufficient to refer only to the partial number. As an example, if the two tones being produced are middle C and G a P5 above, their partial numbers are 4 and 6, the difference tone in this case would be 6-4 = 2 or the second partial, which is C below middle C. There are cases where additive tones are produced, but they are usually inaudible and not of particular interest to us.

The point of all this is that of all the possible asymmetric scales in use, only Ionian has a tritone resolution that produces a difference tone that completes the construction of a major triad on the tonic of the scale, allowing a complete state of repose.

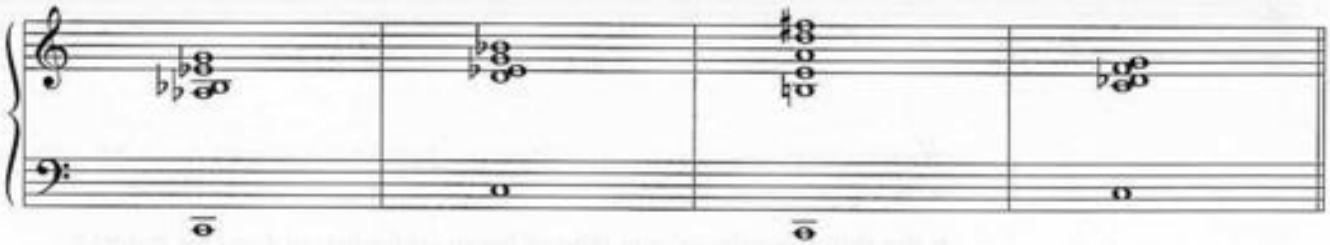
*) The filled pitches are slightly out of tune.

1. The major scale, with the tritone in filled notes.
2. The resulting interval and partial numbers.
3. The computed difference tone, creating a triad.
4. A Phrygian mode, with the tritone in filled notes.
5. The results, a triad not built upon the mode's tonic.

ACOUSTIC SOURCE

The acoustic source is the Ionian mode whose root is the fundamental of the overtone series, defined by the tritone resolution shown above. For the Phrygian example above, it is C Ionian. Of course, the quick way is to refer to a mode's key signature: C Lydian's is G, E♭ Aeolian's is G♭, etc.

CHORD STABILITY

A chord's stability or instability is a result of the divergence of the vertical spacing of the chord's tones from the natural placement of those tones in the overtone series. The degree of difference gives the resulting chord quality a "bite," starkness, or consonance. A chord's spacing can pervert the OS in these ways: a partial can be altered, it can be transposed, or it can be both altered and transposed. In addition, the chord's tessitura can effect a dark or bright quality by a diffusion of the chord's fundamental. If a chord is too low, the resulting placement of its fundamental may be below the range of hearing, creating the effect of all the chord's pitches being transposed partials.



1. G – no change
2. E♭ – altered, darker
3. B♭ – displace down an octave, tense
4. A♭ – altered & displaced, dark & tense

Result: quite dark, not too unstable

1. B♭ – right on!
2. G – OK
3. E♭ – altered, a bit darker
4. D – displaced an octave, a bit less stable

Result: not too dark, not too tense

1. F♯ – where it should be
2. D – OK
3. A – down an octave, a bad tense
4. E – unchanged
5. B♮ – altered & displaced, bright & tense

Result: a bright and slightly tense chord

1. G – OK
2. F – displaced & altered, dark & tense
3. D♭ – altered & down an octave, dark & tense
4. C – OK
5. C – OK, but not the fundamental, a bit weak

Result: quite dark and tense

The next step here is to play these chords and compare the subjective results. Try different tessituras, note the result.

Hindemith points out that the changes in partial placement and spelling results in an actual increase in energy through molecular activity. Try to hear an increase in "heaviness" in the tense spacings.

DETERMINING THE COLOR TONES

A chord that would most clearly define the modality of a scale would contain all seven notes of that scale. Obviously, that would not be too musical; a group of chords all voiced that way would be much too dense and overbearing as well as inhibitive of any sense of voicing contour. In order to select fewer notes that will give us the transparent spacing that is needed while still defining the particular modality of the scale we are representing, we need a method to determine a priority of note selection.

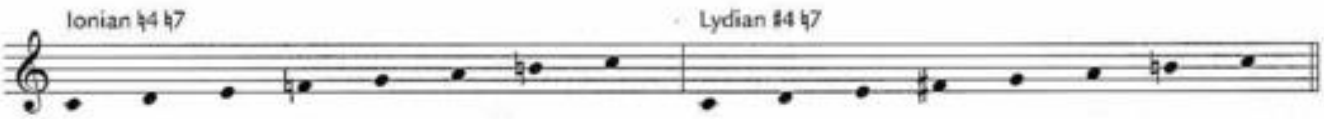
THE METHOD

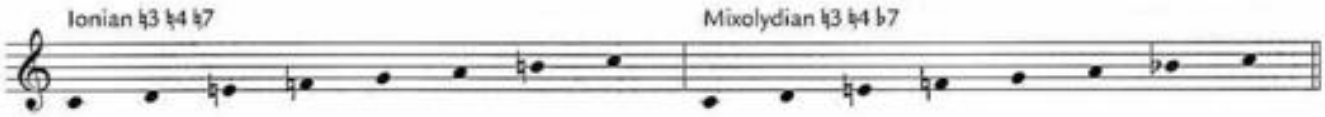
As shown on previous pages, the Ionian mode is the most stable of all the 35+ modes available for use in contemporary jazz composition.

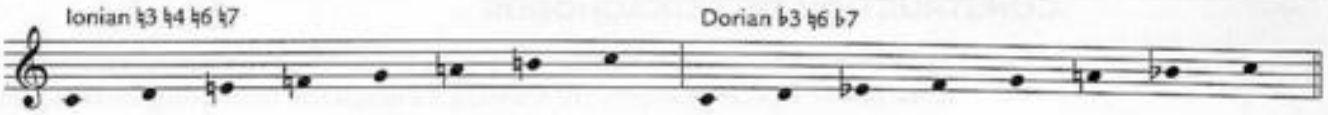
Even without investigating its acoustic properties, the listener "knows" that the Ionian mode is the one with the least desire to resolve. So, from this point on, we will consider it axiomatic that the Ionian mode will be the point of comparison for all other modes, whether they are brighter or darker than the compared Ionian.

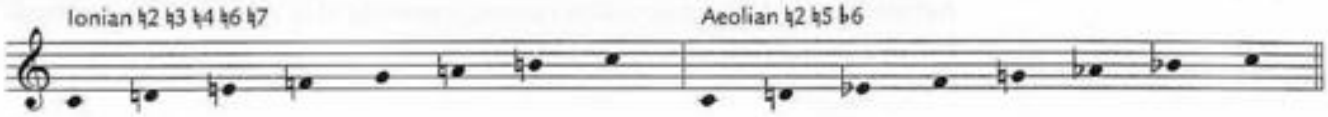
With this in mind, to determine the modal definition of any scale, we need to make a note-to-note comparison with the Ionian mode that has the same root as the mode to which it is being compared. The notes that differ are the notes we will use to define the new mode chordally.

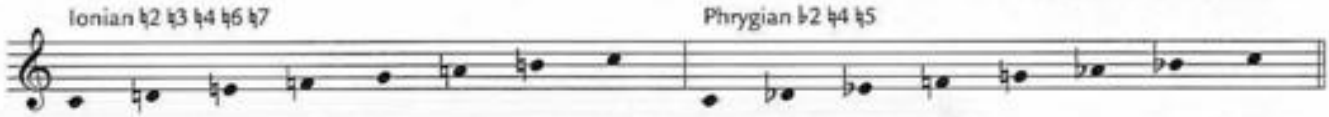
As the following examples show: Lydian could be thought of as Ionian with a sharp 4, the sharp 4 being the only difference between Ionian and Lydian built on the same root. Dorian could be thought of as Mixolydian with a flat third or as Ionian with its third and seventh flatted. To determine the primary color tone, a comparison with a mode's immediate predecessor must be made, and the remaining color tones are derived from cycling back to the original Ionian. As one can see, this would give us a flat sixth as the primary color tone of Aeolian and a natural sixth as the primary color tone of Dorian. The process goes on...

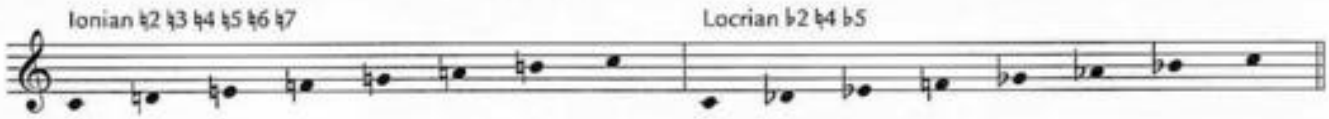
DERIVING THE COLOR TONES

LYDIAN is brighter than Ionian and refers to a sharper key. It is like Ionian with a sharp 4. Sharp 4 is its primary color tone.

At this point, the primary color tones of Ionian are the natural 4 and the natural 7.

MIXOLYDIAN has the same spellings as Ionian except for the alteration of the flat 7. Flat 7 and natural 4 are its primary qualities.



DORIAN is a darker version of Mixolydian. Looking ahead to Aeolian, because Aeolian has a flat 6, the primary quality of Dorian is natural 6.

AEOLIAN is clearly in the realm of darkness, with so many flats. Flat 6 is its primary color tone, natural 2 (9) completes it.



PHRYGIAN'S primary color tone is flat 2. There will be more Phrygians to come and flat 2 is a primary quality of all of them.

LOCRIAN is so altered it approaches another key center. It is like Phrygian with a flat 5. Flat 5 is the primary quality of Locrian.

Notice that many of the note choices include the pitch that is found a tritone from the primary color tone; that pitch is usually definitive of the mode. (Ex: the natural 2 of Aeolian, the fifth of Phrygian). Looking at the *acoustic source* there is a tritone between two of the notes: C Ionian's are F and B, and the two usually are found in the first two notes of the order table.

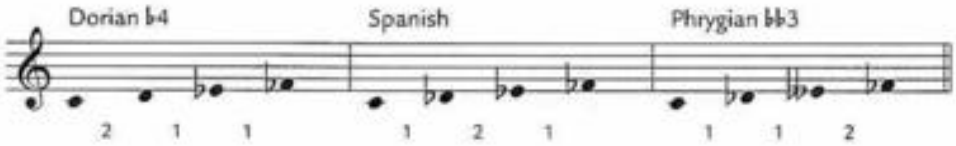
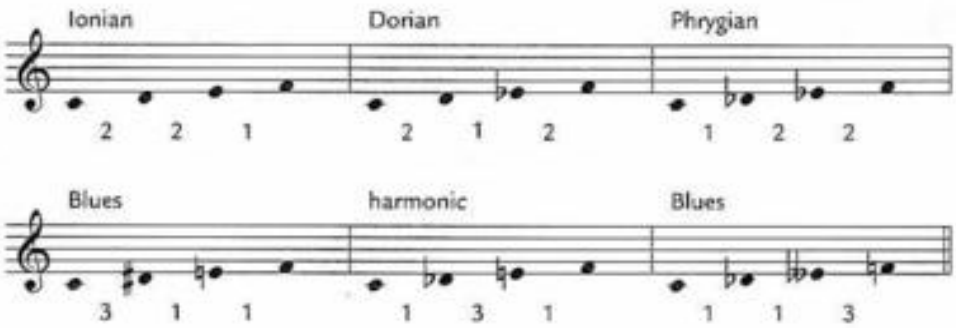
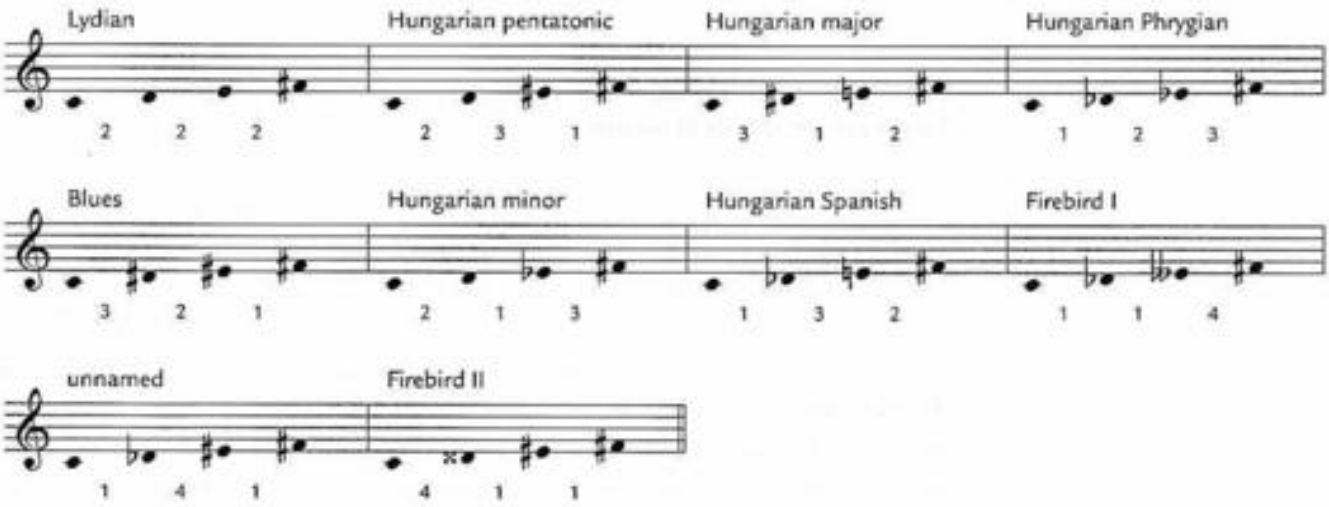
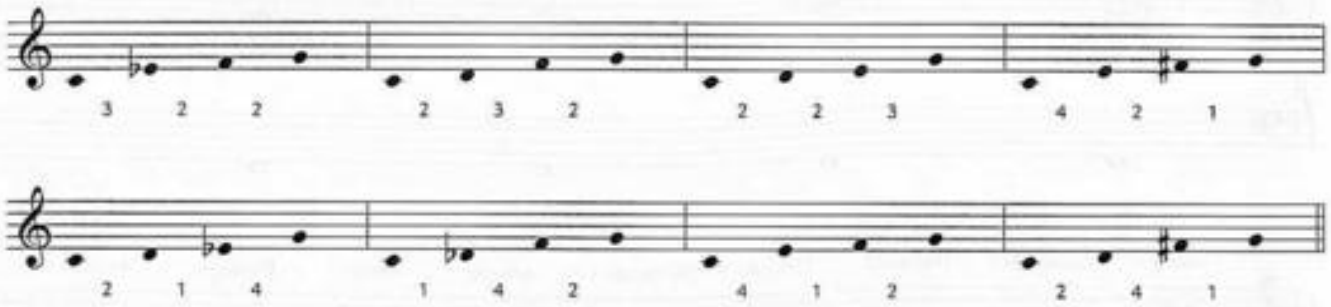
This also explains why Lydian and Locrian are special modes regarding resolution tendencies; they both have a tritone built from the root.

The method for determining color tones is the same for the altered diatonic modes. The above example should be sufficient as a guide if a student wants to pursue that assignment.

CONSTRUCTION OF TETRACHORDS

There are many more tetrachords that can be used by the forward-looking composer than is found in contemporary examples. The following is a method for constructing the tetrachords presently in use, as well as a means for deriving new ones.

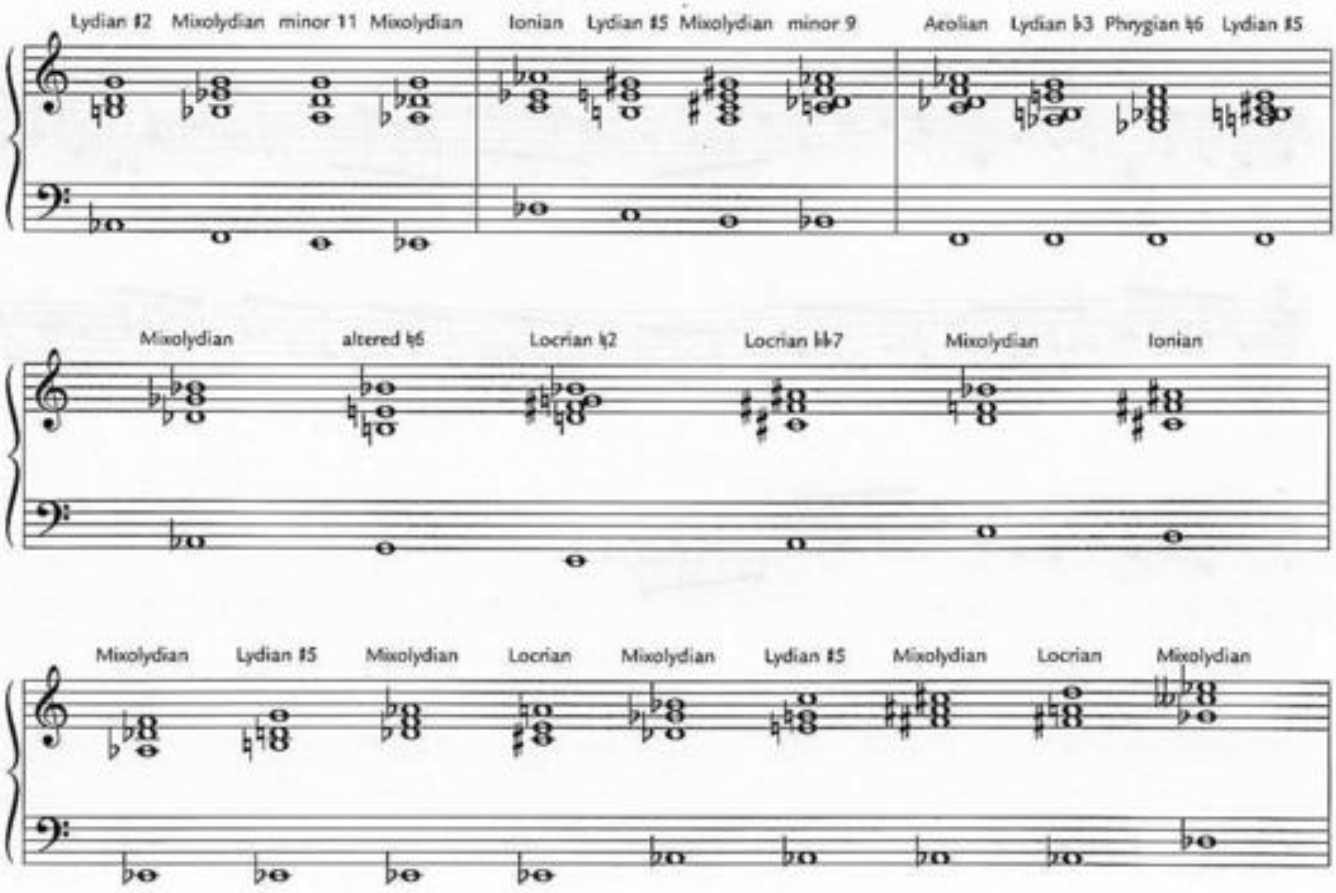
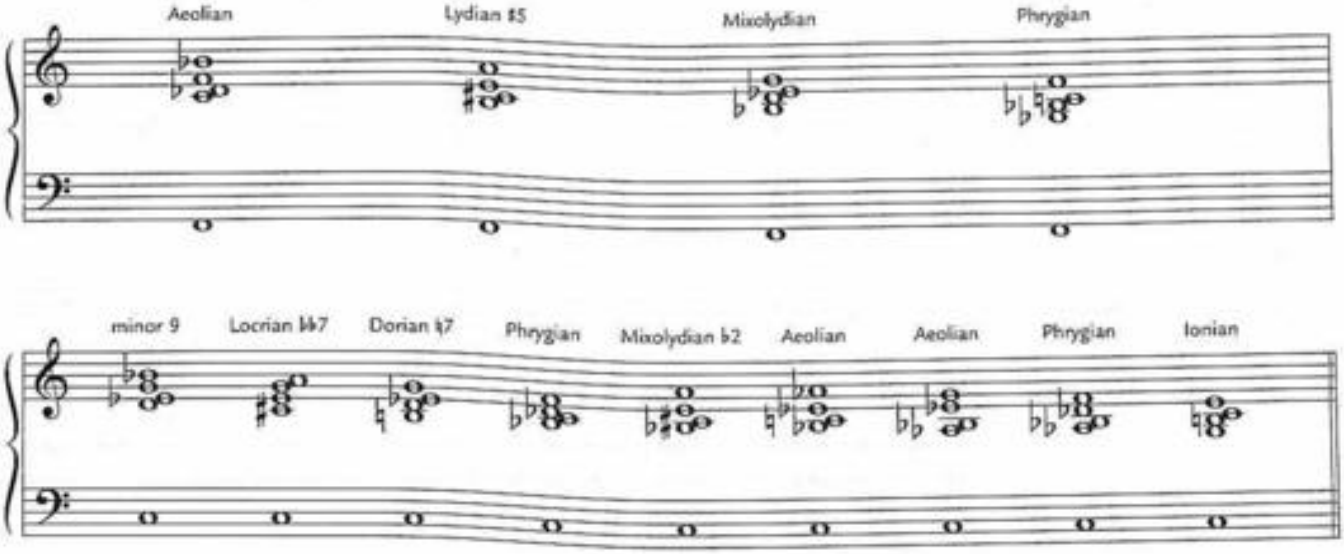
The only "rules" to follow are to include four notes and to keep the sum of the semitones of the tetrachord within the definitive limit. If the tetrachord is to be used to construct modes, the sum should not be higher than six semitones – a limit of less than four semitones would give a tetrachord that could not be transposed. In addition, one should assure that the pitch sequence follow the normal alphabetical sequence: A B C D, C D E F, etc. A semitone limit above six allows the creation of pentatonic and other special use tetrachords. A few will be included here and the subject will be covered in more detail in Volume 2 of this textbook.

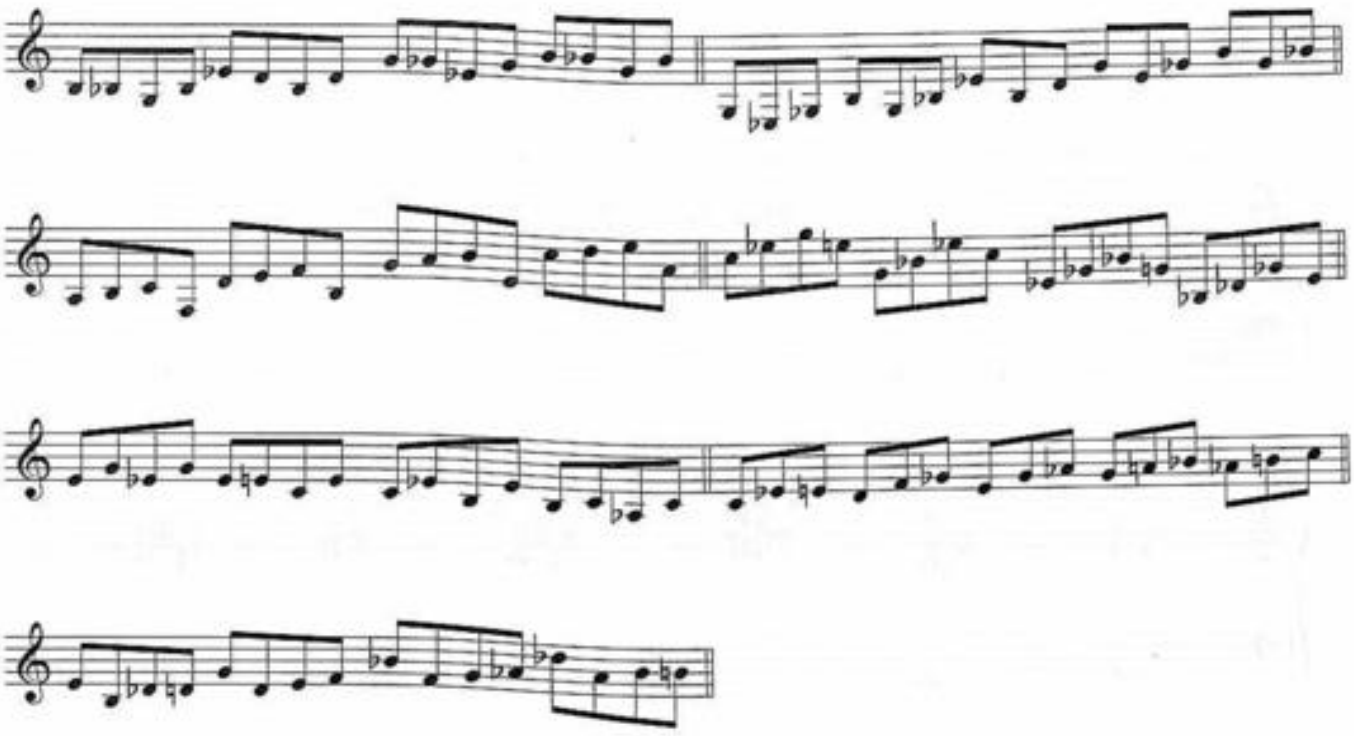
Example: 4 Semitones

Example: 5 Semitones

Example: 6 Semitones

Example: Pentatonic Tetrachords (perfect fifth limit)

As one can see, as long as there is the four note limit, there are quite a few possibilities for tetrachord construction. This procedure can be of great use for the improvisor/composer for the instant creation of exotic "lines" while "blowing" over changes with relaxed harmonic rhythm – but this is a subject for another book.

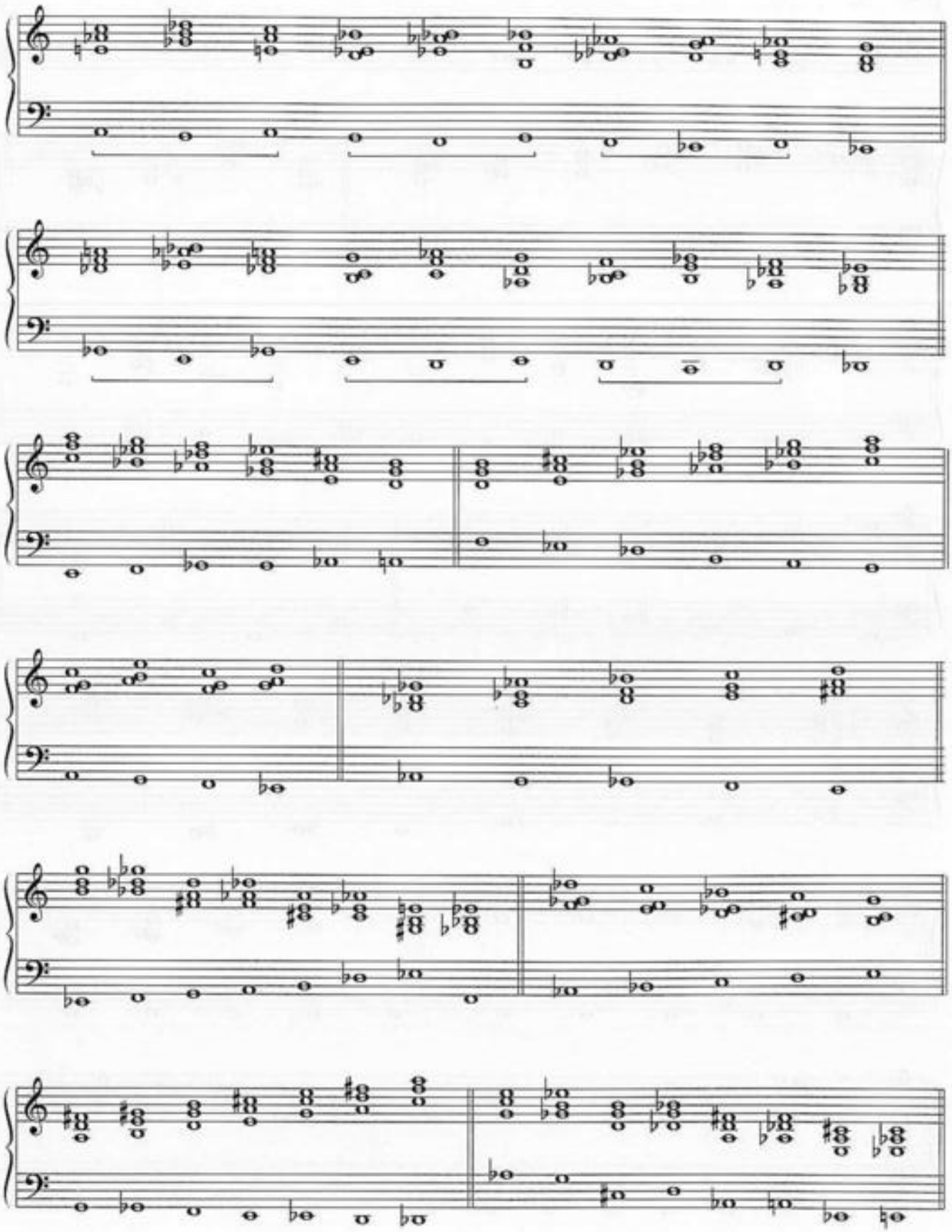
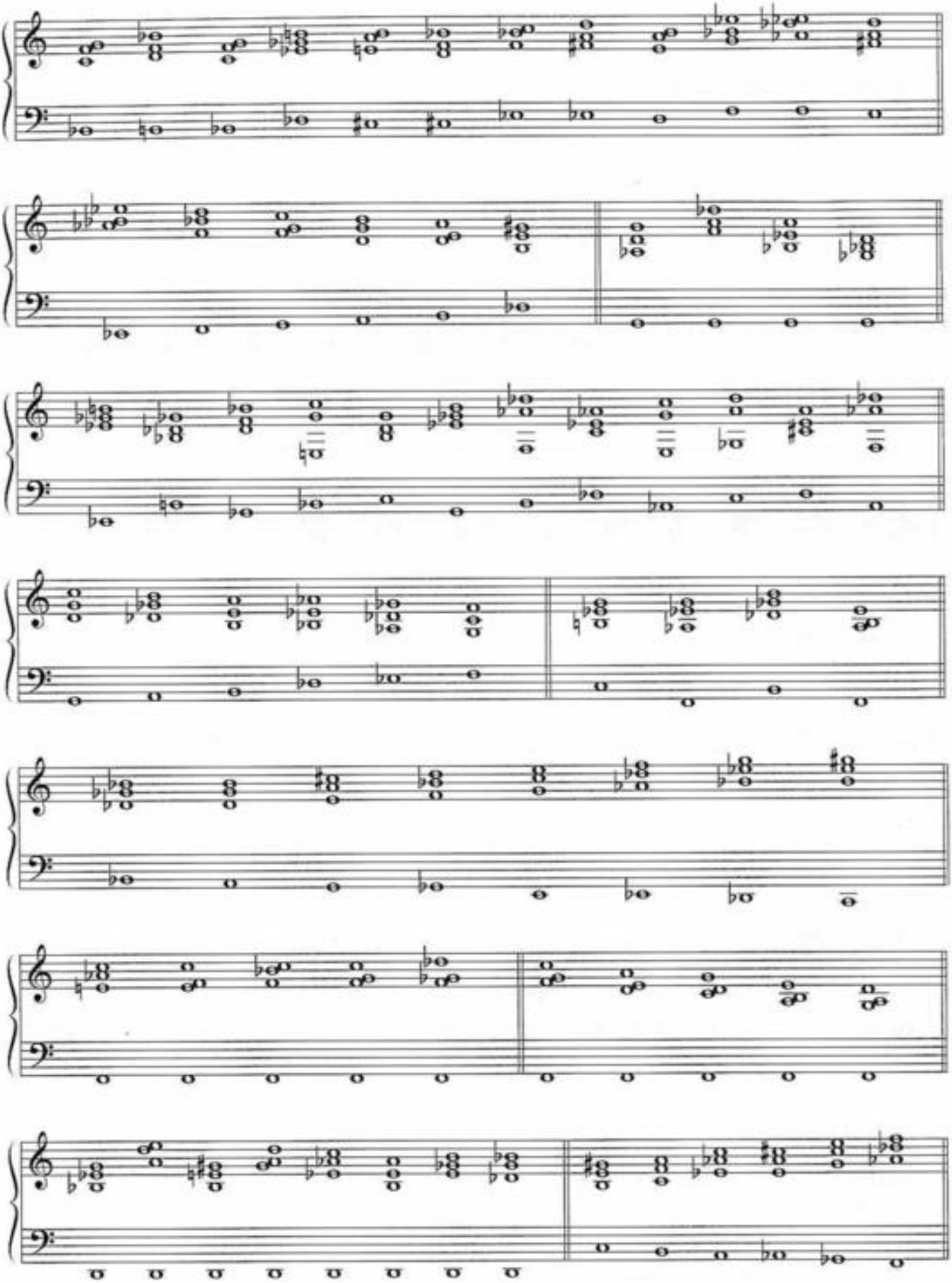
ADDITIONAL EXAMPLES

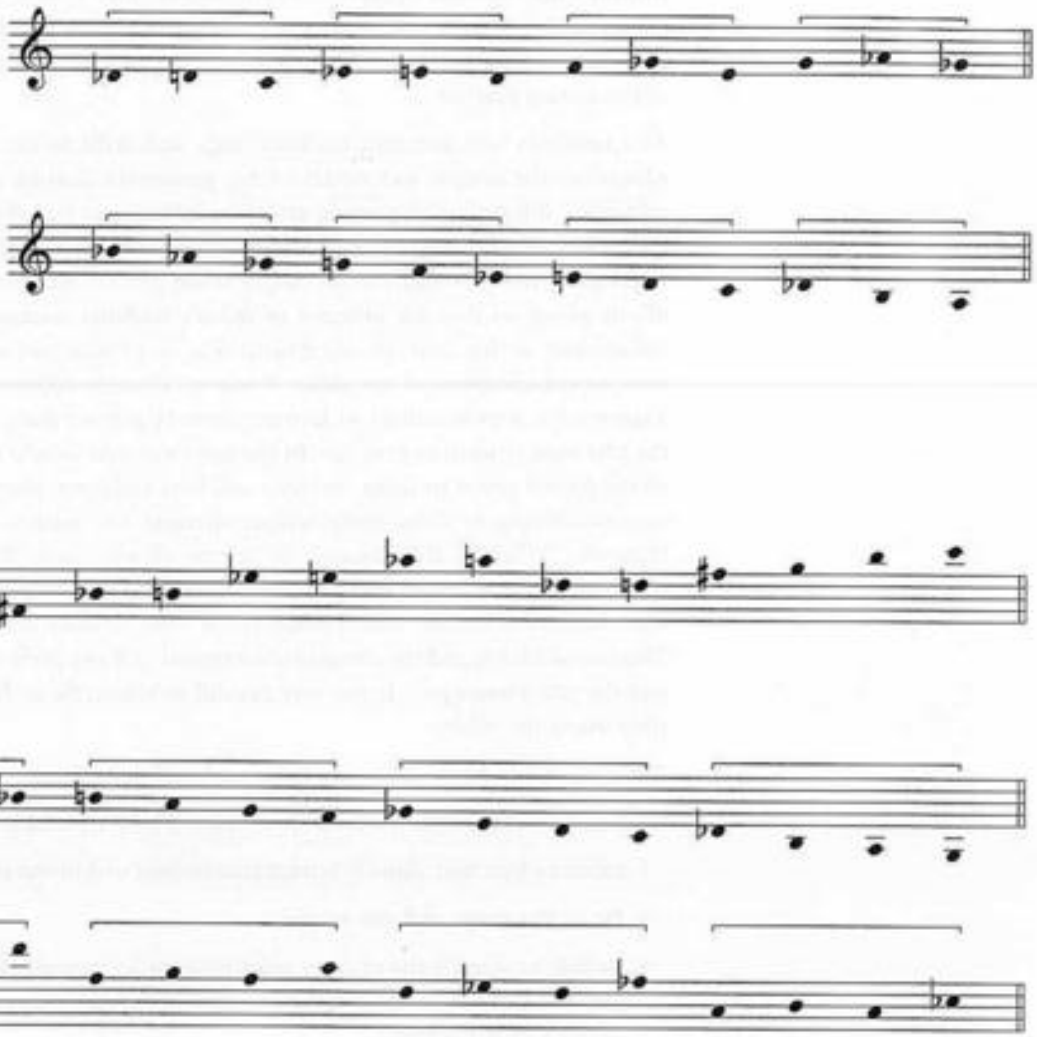
The following miscellaneous examples are included for further reference for ideas, examples to play at a keyboard, for ear training, or for clarification of concepts. A number of them were created by computer programs – and are still useful. The examples include common tone connection, both upper and root, symmetric patterns, and harmonizations. Within the examples are additional chord voicings for further study.

A. COMMON CHORD CONNECTION



B. SYMMETRIC PATTERNS

C. COMPUTER GENERATED EXAMPLES



COMPUTER GENERATED PATTERNS

EAR TRAINING GUIDE

It has been emphasized more than a few times that one cannot work creatively with chromatically related modal chords without first "hearing" them in a musical context. The student whose musical background or innate abilities show a weakness in the area of aural identification of modal chords can use this guide to ease the pain of what is a very difficult chore. There is no real shortcut to acquiring these aural skills – it is *hard work*, requiring hours of frustrating practice.

As a musician who acquired his knowledge and skills before there was a concept of jazz education, the author and others of his generation learned all they could by the "aural tradition" of listening to records, attending concerts or jazz clubs, constant "jamming" and badgering our peers and heros for information. The listening to records was not just for the inspiration they provided, but for all one could glean from them – they were the "textbooks" of our group, as they are to many of today's students. Because there was so little written information at that time, the aural identification of what was on those recordings was more than an enhancement of our skills, it was an absolute requirement to attaining any skills. Transcribing improvisations, or learning them by playing along with the recordings is one of the best ways to learn to play jazz. In the same way, one should transcribe compositions with all the correct chord voicings, melodies and bass and drum parts. This author can attest that the transcribing of three compositions changed his musical life: "Little One" by Herbie Hancock, "Filles de Kilimanjaro" by Wayne Shorter, and "Power to the People" by Joe Henderson. These compositions became available to the listening public in the middle to late '60s, when the author was writing tunes that showed an influence of Horace Silver, Thelonious Monk, and the compositions typical of those performed by Cannonball Adderley and the Jazz Messengers. It was very painful to transcribe so far above one's abilities – but truly worth the effort.

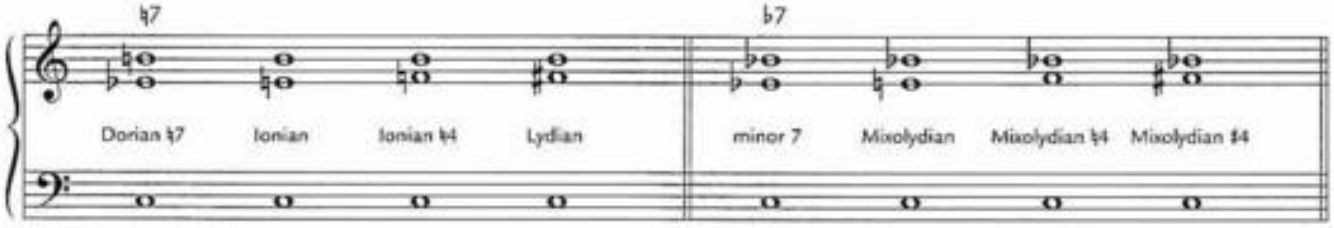
The plan of attack for improving your "ear" abilities follows:

1. Learn to identify all the tetrachords played both up and down.
2. Learn to hear and identify tetrachords hidden within the playing of chords.
3. Do as the above with the modes.
4. Be able to identify the primary color tones as an interval of root to color tone. This first part will not be too difficult because of the amount of melodic ear training that is a part of one's early training.
5. Learn to identify the arpeggiated unaltered diatonic modal chords – this, still a form of melodic ear training, shouldn't be too difficult.
6. Try to hear the unaltered chords with three notes only: root, primary, and secondary color tones. Refer to the following guide.

THE GUIDE

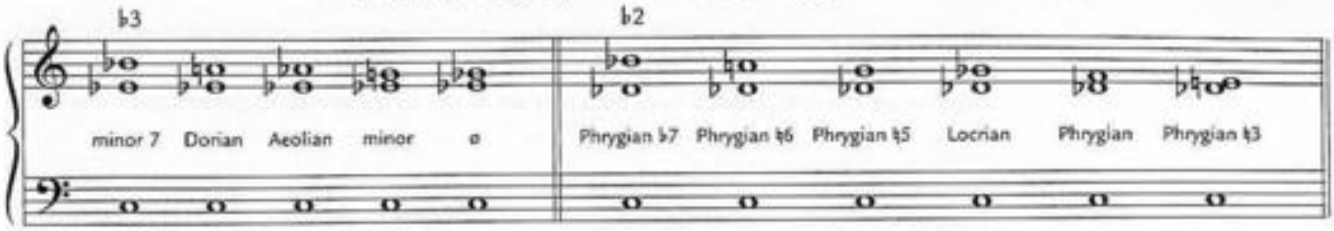
This is organized by categories of a primary color tone with its added secondary qualities. Once you learn the primary quality as an intervalic definition, add the secondary color tone.

1. Groups of ♮7 Ionian

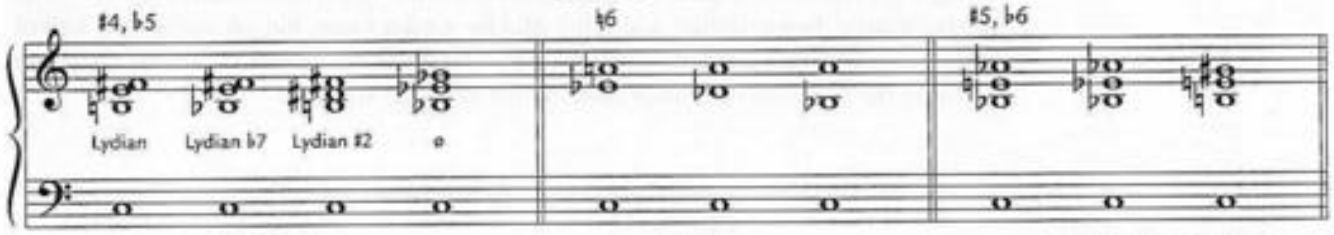


2. Groups of ♭7 Mixolydian

3. Minor third group 4. ♭2 Phrygian



5. - 7. The remaining groups

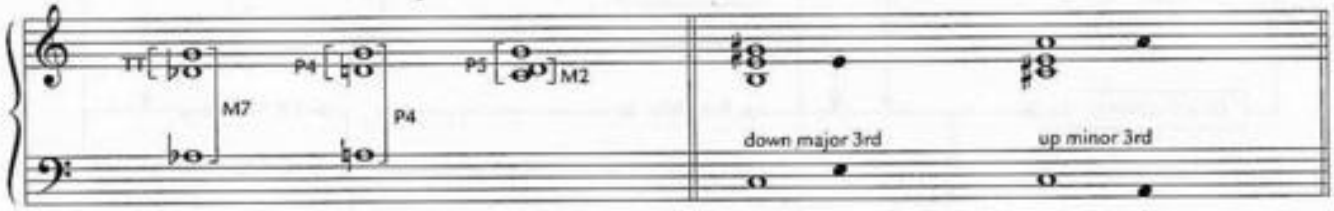


You can further organize the chords if you wish, maybe by groups of major thirds, all the altered types or all Lydians: Lydian, Lydian-augmented, Lydian ♯2, etc.

Moving on to full spacings, it is best to learn the chords by their composite sound and by their grip. When you hear a chord, your right hand should have a "feel" for what you are hearing. Learning the chords by their composite sound has no real shortcut – you must spend a lot of time in practice. Start by learning the voicings that are most commonly used; they are available within the pages of this book. If needed, practice with arpeggiations at first. In addition to "ear training" practice, much keyboard playing of the chords will be of benefit, particularly for the "grip" method of identification (see Example 8).

Slash chord identification can be learned by an intervalic method. As you will recall, the upper structure triad has a root as part of its construction; learn to identify the ratio of that root to the root of the chord (see Example 9).

8. Grips 9. Slash chords



Once you are fairly proficient with modal chord identification you should move on to the transcribing of full compositions, with full transcriptions of the chordal voicings.

An ultimate goal is to be able to identify everything that you hear and to be able to transcribe it to musical notation: all drum parts, bass parts, horns, voices, rhythmic figures, chord voicings, and timbral or instrumental assignments. The mature student should include identification of the players by style and sound. And for the meticulous, identification of makes of instruments, reed size and mouthpiece and even synthesizer makes and "patches"; in short, all you know and hear.

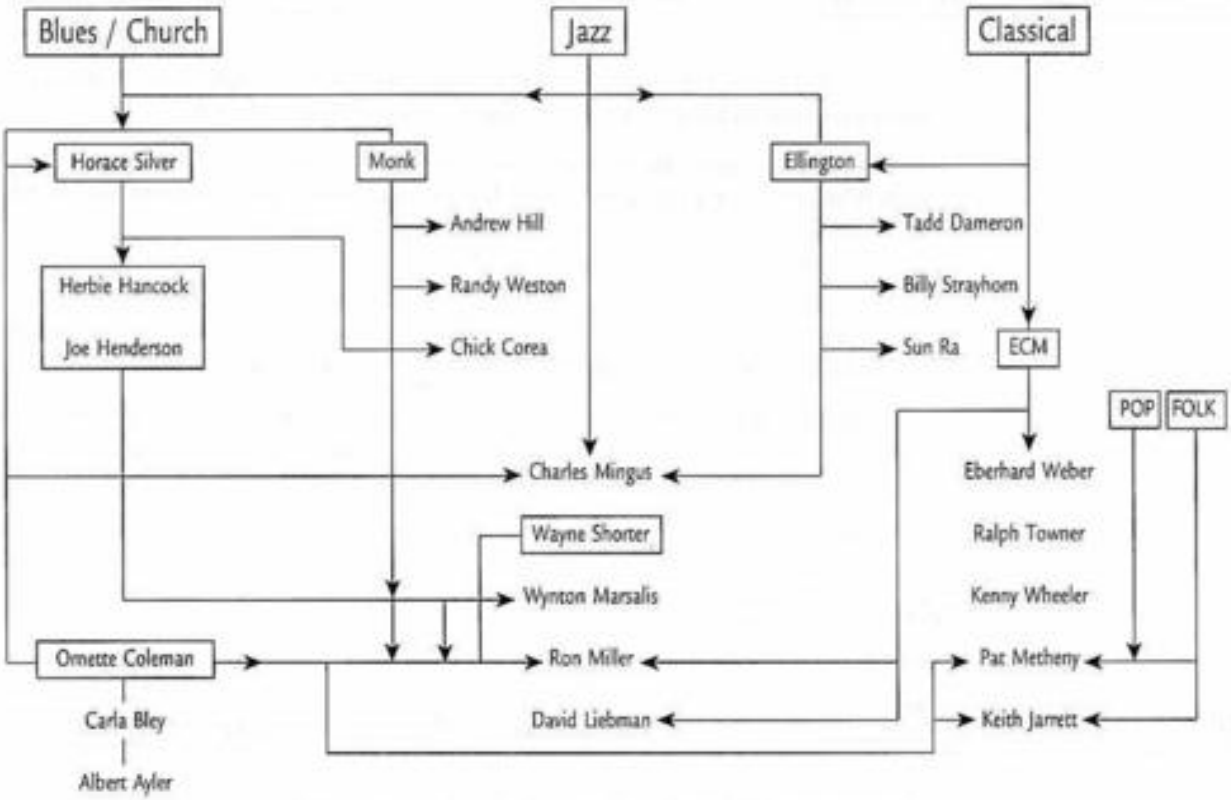
Your ear training should not just be in the academic environment or in the car listening to the stereo: while watching TV or movies, identify and, later transcribe the music – the film scorers have some great stuff. Try to transcribe Stravinsky or Gil Evans; go for all you hear.

Everyone has different abilities for aural identification, from those with perfect pitch to those whose listening background has been mostly "pop" harmony – but all can benefit from more ear training.

THE TREE OF INFLUENTIAL JAZZ COMPOSERS

The following is not meant to be a comprehensive representation of the evolution of jazz and its composers; it is meant to be a guide for the discography that follows. In addition, it emphasizes the composers whose materials are closer to the materials presented in this textbook.

The key word here is *influential* because most jazz musicians are composers. Yet, there are composers who, because of the strength of their compositional skills, have inspired others to write in a similar style. That is why some names are not included, names that once mentioned bring forth memories of great compositions. Names like Kenny Dorham, Freddie Hubbard, Cedar Walton, Benny Golson and Hank Mobley – great tunes, but no movements started because of them. So, using the following visual reference, try to hear the influences as you listen to the suggested recordings found in the discography.



DISCOGRAPHY/BIBLIOGRAPHY

RECORDINGS

The following, although not complete and not totally up to date, as there are so many new releases each month, are representative of the composer's works as advocated by this text. As mentioned early on in the text, knowing the music on these recordings is essential to mastery of the harmonic/compositional techniques presented. More than a cursory listening, the music must become a part of your inner being: it must change your musical life.

DUKE ELLINGTON

1. Masterpieces by Ellington

2. Ellington At Newport

3. The Ellington Suites

4. Afro Bossa

5. Such Sweet Thunder

6. The Far East Suite

7. And His Mother Called Him Bill

8. New Orleans Suite

9. Anatomy Of A Murder

WAYNE SHORTER

1. Night Dreamer

2. Speak No Evil

3. Etcetera

4. Adam's Apple

5. Native Dancer

6. Atlantis

JOE HENDERSON

1. Power to the People

2. In Pursuit of Blackness

3. Page One

4. Inner Urge

HERBIE HANCOCK

1. Maiden Voyage

2. Speak Like a Child

3. Crossings

MILES DAVIS

1. The Sorcerer

2. My Funny Valentine

3. ESP

HORACE SILVER

1. Finger Poppin'

2. Silver's Serenade

JAZZ MESSENGERS

1. Ugetsu

2. Jazz Corner of the World

THELONIOUS MONK

1. Who's Afraid of the Big Band Monk

2. Live at the Five Spot

CHARLES MINGUS

1. Barnaby Sessions

2. Ah Um

3. The Black Saint The Sinner Lady

CANNONBALL ADDERLEY

1. Live in New York

2. Live in Japan

3. Live in San Francisco

GIL EVANS / MILES DAVIS

1. Quiet Nights

2. Miles + 12

3. Individualism

EBERHARD WEBER

1. Yellow Fields

2. The Following Morning

3. Little Movements

RALPH TOWNER / OREGON

1. Solstice

2. Winter Light

3. Blue Sun

AVANT-GARDE

1. Paul Bley – *Barrage*
2. Ornette Coleman – *Ornette on Tenor*
3. Albert Ayler – *Ghosts*
4. Sun Ra – *Heliocentric Worlds*
5. Material – *Memory Serves*
6. Laswell – *Baselines*

MISCELLANEOUS

1. Keith Jarrett – *Belonging, Treasure Island*
2. Jan Garbarek – *The Runes*
3. McCoy Tyner – *Expansions, Tender Moments*
4. Weather Report – *Weather Report*
5. Joe Zawinul – *Zawinul*
6. Kenny Wheeler – *Double, Double You*
7. Dave Liebman – *Drum Ode*
8. Joey Calderazzo – *In the Door*
9. Andrew Hill – *Black Fire*
10. Kenny Barron – *Golden Lotus*

CLASSICAL LISTENING

The following sample selection should provide a good starting point for additional harmonic and melodic source material. Most of the non-idiomatic harmonic and melodic materials, as presented in this book, are derived from the listed sources. Romantic melodies are very much a part of the jazz language and these compositions also provide great examples of modal harmony, chord voicings, romantic harmony and, of course, the skills of the world's best composers.

It is suggested that you obtain the scores and read along with the recording, making notes of particular areas of interest. Like the jazz recordings, you should attempt to make these musical examples a permanent part of your inner self.

1. Tchaikovsky – Romeo and Juliet
2. Rachmaninov – Piano Concerto No. 2
3. Mendelssohn – Songs Without Words
4. Rimsky Korsakov – Scheherezade
5. Prokofiev – Romeo and Juliet
6. Ravel – Daphnis et Chloe
7. Ravel – Valses Nobles et Sentimentales
8. Respighi – Pines of Rome
9. Stravinsky – Firebird
10. Stravinsky – Symphony of Psalms
11. Messiaen – Seven Haiku
12. Copland – Rodeo
13. Wagner – Tristan und Isolde
14. Stravinsky – Pulcinella
15. Frank – Violin Sonata in A

BOOKS

A. THEORY

1. Anything by Jerry Coker
2. *The Jazz Theory Workbook* by Mark Boling
3. *Jazz Harmony* by Andy Jaffe
4. *Jazz Arranging and Composing – A Linear Approach* by Bill Dobbins
5. *Changes Over Time – The Evolution of Jazz Arranging* by Fred Sturm
6. *A Chromatic Approach to Jazz Harmony and Melody* by David Liebman
7. *Craft of Musical Composition Vol. 1 and 2* by Paul Hindemith
8. *Contemporary Harmony* by Ludmila Ulehla
9. All books by Gordon Delamont
10. *Music Manuscript Techniques* by Paul Harder
11. *Twentieth Century Composition* by Leon Dallin
12. *Thesaurus of Scales & Symmetrical Patterns* by Nicholas Slonimsky
13. *The Jazz Composer's Companion* by Gil Goldstein

B. HISTORY

1. *Miles Davis* by Ian Carr
2. *Mingus* by Brian Priestly
3. *Jazz Styles* by Mark Gridley

C. MISCELLANEOUS

1. *The Music of Ron Miller*
2. *The Poetics of Music* by Igor Stavinsky

ABOUT THE AUTHOR

Ron Miller is a professor of jazz studies at the University of Miami. His areas of expertise are jazz composition, advanced improvisation, and jazz piano. He also directs the Monk-Mingus, Horace Silver, ECM and Avant-Garde ensembles.

Ron's compositions have been performed worldwide by many musicians including the faculty and students at the Jamey Aebersold clinics.

His compositions also have been recorded and/or performed by notable musicians such as Hal Galper, Red Rodney, "Elements," Ira Sullivan, and Stan Getz.

Composition students of Ron's that have attained notoriety include Pat Metheny, Steve Morse, "T" Lavitz, Bruce Hornsby, Gil Goldstein, Mark Egan, Matt Harris, Denis DiBlasio, and Rick Margitza.

MARK E. BOLING / EDITED BY JERRY COKER

The Jazz Theory Workbook

• ORDER NO. 11201 (125 PAGE BOOK)

"The Jazz Theory Workbook" is a primer in jazz theory, intended to prepare the student for the serious study of jazz improvisation, arrangement and composition.

The focus is on the harmonic language of jazz, especially the harmonic practices which coalesced in the bebop and post bop periods of the 1940s and 1950s when bebop and standard tunes formed the core of the mainstream repertoire. The harmonic language of that period is still the framework on which contemporary jazz musicians build.

Included are many musical examples and written assignments for practice in the theoretical skills. Appropriate exercises are provided to reinforce theoretical concepts by immediate application to the instrument.

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BILL DOBBINS

Jazz Arranging and Composing: a Linear Approach

• ORDER NO. 11305 (BOOK W/CD)

Many different possibilities for harmonizing the same melody are illustrated and analysed, using techniques by such influential arrangers and composers as Duke Ellington, Billy Strayhorn, Oliver Nelson, Gil Evans and Clare Fischer.

_Techniques of melody harmonisation, linear writing and counterpoint for 2, 3, 4 and 5 horns.

_A chapter on writing for the rhythm section clearly illustrates the techniques commonly used by jazz arrangers and composers.

_Six complete scores in concert key are ideal for analysis, for playing the horn parts on the piano or for following the performances on the CD.

_An extensive chapter on form and development deals with extended compositional forms and the use of compositional techniques in writing for the small jazz ensemble.

_A useful discography is included at the end of each chapter.

"Jazz Arranging and Composing: a Linear Approach is a welcome and greatly needed addition to jazz educational literature. It is the first book to provide a clear and logical bridge from the more basic techniques of arranging and melody harmonisation to the more advanced linear methods employed by some of the most interesting and influential jazz arrangers and composers. The musical examples and scores are well organized and the analysis is clear and accessible. I have long known Bill's unique abilities as a gifted pianist and composer, and I highly recommend this most recent contribution to jazz writers at all levels of experience." ***(Clare Fischer)***

.....

GIL GOLDSTEIN

Jazz Composer's Companion

• ORDER NO. 11304 (116 PAGE BOOK)

This book is divided into three main sections: Melody, Rhythm, and Harmony. Dozens musical examples as well as compositions by Bill Evans (pianist), Jaco Pastorious, Jim Hall, Ralph Towner, Steve Swallow, Pat Metheny, Michael Gibbs a.o. are included in order to illustrate specific compositional techniques. An extensive chapter on The Compositional Process features interviews with jazz composers Bill Evans, Carla Bley, George Russell, Horace Silver, Pat Metheny, Chick Corea, Lyle Mays, Anthony Davis, Herbie Hancock, Richie Beirach, Ralph Towner, a.o.

"Gil does a service here on a high level. The concepts he offers impose no style and thus, can be used and extended to enrich any musicians vocabulary. The rest is up to you." ***(Bill Evans)***

.....

ANDY JAFFE

Jazz Harmony

• ORDER NO. 11210 (CA. 200 PAGES)

2nd edition, completely revised and enlarged. 14 chapters including exercises and assignments: Intervals, Chords, Inversions, Modes; Diatonic And Modal Chord Progressions; The Blues; Lead Sheets; Song Forms and Melodic Variations; Secondary Dominant Chords; Substitute Dominant Seventh Chords and Tritone Subs; Minor Key Harmony; Modal Interchange and Minor Blues; Common Chord Progressions and Voice-Leading; Modulation; Pentatonics and Other Symmetric Scales; Blues Variations; Rhythm Changes; Coltrane's 3-Tonic System; Slash Chords and Hybrid Chord Voicings.

The first edition was one of the most widely used books on jazz harmony. For classroom and individual use.

"Jazz Harmony is a brilliant addition to the field of jazz theory. It is well-written and beautifully organized, and the information it contains is thoroughly researched and authentically presented. I recommend it highly." ***(David Baker)***

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FRED STURM

Changes Over Time: The Evolution of Jazz Arranging

• ORDER NO. 11350 (224 PAGE BOOK W/CD)

"Changes Over Time: The Evolution of Jazz Arranging" was conceived to illustrate, through comparative case studies, the dramatic development of rhythmic, melodic, harmonic, orchestrational, and structural variation in jazz arranging from the 1920s to the present. A broad category of compositions that have each inspired numerous jazz arrangements was established, and the arrangements associated with each of the original works were examined to determine the level of quality, the span of jazz history represented, and the number of renditions created by historically significant jazz arrangers, including Don Redman, Fletcher Henderson, Benny Carter, Duke Ellington, Billy Strayhorn, Gil Evans, Thad Jones, Bill Holman, Bob Brookmeyer, and Clare Fischer.

The case studies were narrowed to 35 arrangements of three classic jazz compositions and one American popular standard song: Jelly "Roll" Morton's *King Porter Stomp*, Don Redman's *Chant of the Weed*, Gerald Marks' and Seymour Simon's *All Of Me*, and Billy Strayhorn's *Take The "A" Train*.

Scores and/or parts representing nine decades were supplied by living arrangers, borrowed from collections, reconstructed from sketches, or transcribed from recordings. Four contemporary masters were ultimately commissioned to create new arrangements of four selected compositions.

.....

LUDMILA ULEHLA

Contemporary Harmony – Romanticism through the 12-Tone Row

• ORDER NO. 11400 (534 PAGE BOOK)

The understanding of the musical techniques of composition can not be reduced to a handbook of simplified rules. Music is complex and ever changing. It is the purpose of this book to trace the path of musical growth from the late Romantic period to the serial techniques of the contemporary composer. Through the detailed analysis of the musical characteristics that dominate a specific style of writing, a graduated plan is organized and presented here in the form of explanations and exercises. A new analytical method substitutes for the diatonic figured bass and makes exercises and the analysis of non-diatonic literature more manageable.

The explanations describing each technique are thorough. They are designed to help the teacher and the student see the many extenuating circumstances that affect a particular analytical decision. More important than a dogmatic decision on a particular key center or a root tone, for example, is the understanding of why such an underdeterminate condition may exist.

"I have used this book for analysis for teaching and as a creative tool in my own compositions. It is enormously useful and provocative." (***Robert M. Abramson**, The Juilliard School, New York*)

"Contemporary Harmony is the only book that adequately treats contemporary compositional techniques as rhetorical expansions upon the past. ...one of the great analytical essays of our century." (***Ron Thomas**, pianist*)

"Contemporary Harmony is one of the finest, most comprehensive texts ever written on the subject. A unique and invaluable contribution to both the student and the professional musician." (***D. Anthony Ricigliano**, Manhattan School of Music, New York*)